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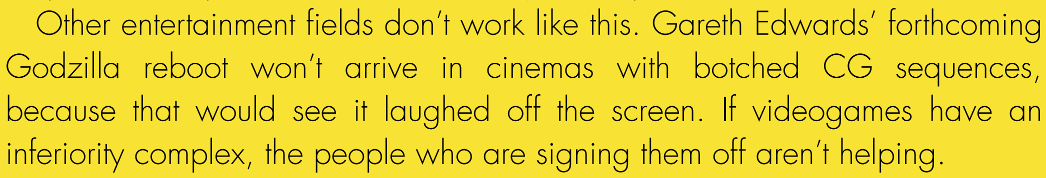
#265
APRIL 2014


SIMPLYGON™

When did rushing anything ever result in greatness?



Nintendo's Shigeru Miyamoto has said a lot of things about videogames, but not all of them have the tang of his pronouncement that "a delayed game is eventually good, but a rushed game is forever bad". It's a straightforward, accurate observation, and one that he made many years ago, and yet it continues to be overlooked by even the biggest game makers. Hence we see Electronic Arts pushing *Battlefield 4* out of the door on its appointed date – a week prior to *Call Of Duty: Ghosts*, crucially – when the game is plainly missing a final layer of refinement. What does it say when one of the highest-profile, most keenly anticipated releases of 2013 is treated this way? At the very least, it says that EA knows it can get away with it.



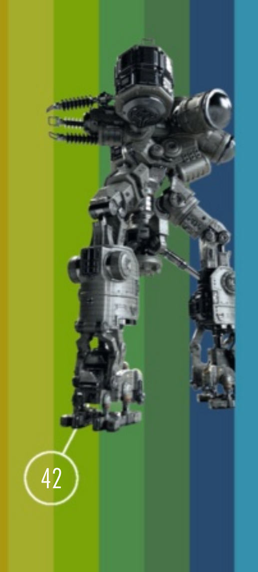
Other entertainment fields don't work like this. Gareth Edwards' forthcoming Godzilla reboot won't arrive in cinemas with botched CG sequences, because that would see it laughed off the screen. If videogames have an inferiority complex, the people who are signing them off aren't helping.

Consumers' exposure to so many rushed, buggy productions has possibly had an unusual benefit for some developers, however. Consider how easy it's been for PC users to transition to handing over hard cash for the privilege of playing incomplete versions of games such as *DayZ* and *Rust*. In pushing developers to publish unfinished work, players have conspired to build a new model where anything goes, overturning some of videogaming's oldest rules.

Despite what EA's output may suggest, this isn't yet an arena in which mainstream publishers want to play. For Ubisoft, it must feel like a particularly uncomfortable place, given its willingness to put the brakes on even its biggest projects when they're not measuring up. In 2012, *Far Cry 3* was held back, and the benefits were eventually clear to all. With *Watch Dogs*, a game granted even more time to be finessed, the company has ambitions to create something to underpin a series to match the triumphant *Assassin's Creed* games. The foundations, then, have to stand up. In this issue's cover story, we discover how its developers are meeting the challenge.

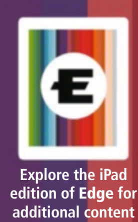






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GAMING WORLD INSIGHT, INTERROGATION AND INFORMATION



VLEDGE

Kickstarter has raised funds for hundreds of gaming projects (1), but after three years, only a handful have been able to truly deliver on their promises. On p10, we look at the difficulty of crowdfunding games, the risks shouldered by backers, and what happens when a funded Kickstarter project collapses. Over on p14, we meet the world-class drivers who make up Nissan's team of GT Academy champions (2), racers who have turned virtual skill into real-world racing success. While deafness and colour blindness are occasionally catered for by videogames, physically disabled players are generally served poorly by this medium; we investigate how innovative hardware and software solutions (3) are opening games up to everyone on p16. Almost 30 years after the appearance of the first battery-backup game, on p18 we take a look inside the cartridges (4) that are dying long before they're ready to be discarded, and at the ways hobbyists are able to extend their lifespans. In Soundbytes on p20, Naughty Dog's Neil Druckmann (5) looks forward to a time when gay and lesbian characters won't raise commentators' eyebrows. And in My Favourite Game on p22, Kristian Nairn (6), AKA Game Of Thrones' Hodor, discusses how Harry Potter broke his iPhone, making music on Atari ST computers, the greatness of *Jet Set Radio Future*, and why he just doesn't get along with *Pokémon*.



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Up-to-the-minute game news and views



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False starts and stalling ambitions

Only one in three videogames funded on Kickstarter between 2009 and 2012 has launched in its full form to date. Why?

Tim Schafer posted a tweet announcing a Kickstarter campaign for a new adventure game in the early hours of February 8, 2012. Within nine hours, the game had met its $400,000 funding target. Within 24, it had streaked past $1 million, a signal to many of a new and fascinating dawn in the hitherto somewhat unexciting business of videogame funding. For the first time in the medium's history, players realised their collective power to decide which games were made.

Two years later, *Broken Age* has half-emerged from Double Fine. But many of the Kickstarter projects that followed Schafer's example have fallen short of their promises, missed their planned release date, were cancelled altogether or launched in compromised form. Of the 366 projects funded between 2009 and 2012, just one in three has fully delivered the promised title to backers.

Akaneiro: Demon Hunters has had its development team shaved down to just two after spending every penny of its $204,680 investment, and is far from complete. Subutai Corporation and Neal Stephenson's swordfighting game *Clang* has apparently faltered, with little communication to backers. *Crisis Heart Brawlers: Clash At Otakon* has vanished, *Xeko*'s parent company has gone bankrupt, *Haunts: The Manse Macabre* was abandoned, and *Rainfall: The Sojourn*'s developer is very slowly refunding his backers.





From top: Justin Ma from Subset Games; Stoic's Alex Thomas, one of the three designers behind *The Banner Saga*

Of the projects that have shipped, well-reviewed successes such as *FTL: Faster Than Light* are uncommon, and only a very few have cracked an 80 average on Metacritic. Meanwhile, *Godus*'s miserable alpha launch has all but killed backers' optimism for Peter Molyneux's second project at 22 Cans, while the extremely well-funded Ouya has struggled to meet expectations.



Akaneiro: Demon Hunters is a free-to-play game made possible by Kickstarter backers. But developer Spicy Horse is now focusing its efforts elsewhere, with co-op multiplayer and tablet versions still not implemented

Some games have followed *Broken Age*'s example by shipping in piecemeal form, but not always with the same quality that has sustained backers' goodwill towards Double Fine. But even with such contentious examples counting towards Kickstarter's 'successful' total, more than half of videogame backers on Kickstarter are still waiting for the games they've helped to fund. As of January 2014, there is $21.6 million outstanding in undelivered videogame projects that were funded between 2009 and 2012.

"There are risks and challenges to any creative project," says **Cindy Au**, head of community at Kickstarter. "After nearly five years and thousands of game projects, we know most of the time things go really well. Failure is something that tends to be demonised, made into something terrifying and larger than life. Yet all the success stories began with a series of missteps, setbacks and failures. It's part of the process of how things get made: trial and error, experimentation, iteration. If a project doesn't reach its goal, or when a game ends up taking longer… those are all things that shouldn't stop people from trying."

> "All the success stories began with a series of missteps and failures. It's part of the process"

Au goes on to suggest backers tend to be "really understanding" when a project "misses the mark" and suggests that backers who are disappointed with the way in which a project is run or who believe that the finished article does not reflect the original promise "ask for a refund if a creator is unable to fulfil rewards".

But Kickstarter views itself as nothing more than a middleman between the project founder and funders, and will offer no support for anyone refused a



Despite running into issues of its own during production, Double Fine's *Broken Age* represents a positive image for Kickstarter-led development

GETTING YOUR ETA RIGHT

Offering videogame backers honest timelines for a project is a challenge for even the most experienced development studio. Kickstarter's Cindy Au has advice for any developer about to embark on a new venture who wants to offer realistic promises to potential backers. "Do your research when it comes to budgeting and timeline," she says. "How much will hiring an artist cost? Are there parts of the development that you won't be able to handle yourself? What will you do if your laptop dies? How much personal funding has been put into the project, and realistically, how much more will you need?

"If you've never made a budget before, talk to peers who have and learn how to do it. It's essential to walk into this with a plan, a clear sense of what costs lie ahead… Sometimes the greatest expense does end up being time, and budgeting for time is a real challenge. My advice? Don't be stingy on time, and make sure you give yourself enough time for unexpected delays. If everyone on your team still has a day job, factor in extra time. You won't regret it. And at the end of the day, if you do run into delays or budget issues, be upfront and talk to your backers."

refund. "Kickstarter is not involved in the development of the projects themselves," the company states in its official FAQ. "Kickstarter does not guarantee projects or investigate a creator's ability to complete their project… Backers ultimately decide the validity and worthiness of a project by whether they decide to fund it." And when it comes to deciding whether a project is viable or not, Kickstarter suggests merely: "Use your Internet street smarts."

Where once videogame publishers shouldered the risk of development – and protected themselves with intricate contracts and key milestones at which points the developer would be paid – Kickstarter's backers bear the full risk of these projects, but have little recourse if a developer fails to hold up its end of the bargain. The vocal project backers demanding refunds on troubled games' Kickstarter message boards might have been less inclined to back a project had they realised their vulnerability.

Stoic, a team of Ex-Bioware developers, attracted criticism early on for its exquisitely drawn strategy-RPG *The Banner Saga* when the game's singleplayer campaign was delayed in favour of a free-to-play multiplayer spinoff. Stoic responded by saying that the spinoff, titled *The Banner Saga: Factions*, was a taster and evidence of the team's progress, as opposed to a fundamental change in direction. In the end, Stoic made good on its original promise and launched the singleplayer campaign to a degree of critical acclaim that's still rare among Kickstarter projects.

"Kickstarter is such a new phenomenon," Stoic's creative director, **Alex Thomas**, says. "I think it takes time for an inherently different way of thinking to really work out all the kinks. Our greatest asset was the years of experience each one of us had in the industry. Even then, we made plenty of minor mistakes along the way. If you look at all the projects that have shipped so far, it's been the ones developed by industry veterans. It's so difficult to make a game that sometimes a huge windfall can become a disadvantage if you haven't been through the process before."



Octodad: Dadliest Catch **attracted $24,320 in funds for developer Young Horses. Its average review score on Metacritic is 70. Nonetheless, it delivered on most of its promises, despite taking longer than anticipated**

Justin Ma is a former employee of 2K Shanghai and one half of Subset Games. Subset's *FTL* has been one of the most successful Kickstarter projects from start to finish: quickly funded, quickly shipped, well-reviewed and well-received by backers. For Ma, most projects fail due to unreasonable ambitions on the developer's part. "Being able to predict what is required for the full game when you're still early in the development process is an extremely difficult task, especially for a small team," he says. "I think the primary reason we were able to live up to most backers' expectations was because the scale of what we were planning was incredibly small."

> "You make your best guesses about what will be fun and play well, but you don't really know"

Even with these modest ambitions, the team was still painfully stretched. "It was mostly done by working insane hours, enlisting the help of friends, and cutting lots and lots of features."

For Ma, crowdfunding sites such as Kickstarter remain an important part of the videogame landscape. "Perhaps the honeymoon period when hopeful backers indiscriminately back projects is over, but that by no means indicates the development model will no longer work," he says. "I expect crowdfunding will continue to play an important role for small development studios."

Likewise, the proximity to *FTL*'s players provided by Kickstarter proved invaluable for Subset, and offered a degree of feedback that a traditional publisher may not have been able to provide. "Backers greatly helped us bug test and gauge what aspects of the game were fun. They helped us a ton with general balance."

Despite Ma and Thomas's positive experiences, the question of whether crowdfunding is suited to videogame development remains. Even aside from the complexities of project managing a multidisciplinary product, there are the moveable parts of the creative process. Promised features may turn out to not be particularly enjoyable during development, and need to be removed. "You make your best guesses about what will be fun and play well, but you don't really know until it starts to come together," Thomas says. "Often it feels like a game never really 'works' until the last couple weeks." Publishers work with milestones and key

The Banner Saga's overfunding improved the game, enabling composer Austin Wintory to hire top-notch musicians to play his score. The game was released this year and reviewed well, with the music attracting particular praise

deliverables for this very reason: to check the progress of a game and to adjust scope accordingly.

But there are no official mechanisms on Kickstarter. A tension will inevitably exist between sceptical backers, who want to receive the product they've paid for in a timely manner, and developers, who are doing their best to make a good game on budget. "Backers should know that development is a very difficult and uncertain process," says Ma. "There's a lot that can happen between a pitch and a commercial product, so try to cut the developer a little slack if it's not going as perfectly as everyone hoped."

Evidently, crowdfunding demands a change in thinking. After three years of modest returns, backers should treat videogame Kickstarters as supporting potential rather than an investment. When even established developers such as Peter Molyneux can't be counted upon to deliver the level of quality players expect, backers' only safe option is to invest no more than they can afford to throw away. "If you can't afford to risk $10 or $15 on an idea you like, just don't back it," Stoic's Thomas says. "It may turn out great, it may not turn out great. It's really that simple." ■





In the absence of solid figures from Kickstarter, this article's data has been provided by www.evilasahobby.com. *Clang* (above) has stalled after developer Subutai admitted that its priority was seeking more funding. *FTL: Faster Than Light* is one of Kickstarter's notable successes, but it's telling that its dev team, Subset Games, already had industry experience

LOOP HOLES

Crowdfunding favours the creator, for both good and bad



There are other gaps in crowdfunding systems beyond the danger of receiving a duff game or nothing at all. Slightly Mad Studios recently announced free-to-play racer *World Of Speed*, while simultaneously working on *Project Cars*, which promises backers a share of the game's profits. While creative director Andy Tudor contends that both games have benefited from sharing technology and assets, it's unlikely a major publisher would have left room in *Project Cars*' contract for Slightly Mad to develop a second racing game using parts of the same engine and art for another publisher at the same time.

Academic success

How the next generation of top motorsport drivers is being trained by Gran Turismo

Four months ago, Miguel Faísca was not a race driver. But in January, he and three other *Gran Turismo* players – Florian Strauss, Nick McMillen and Stansislav Aksenov – finished first in the Dubai 24 Hours SP2 class. These GT Academy graduates were recruited based on their performance in the *Gran Turismo 6* demo last year and all qualified for their race licences after just two months of intensive training. A second GT Academy team came in third.

The question of whether virtual skill could translate to real-world success was first posed by GT Academy back in 2008. In the years since, the alliance between Sony and Nissan to find new racing talent has become a reliable source of drivers for Nissan's Nismo race team.

When **Bob Neville** of RJN Motorsports, Mark Bowles of SCEE and Darren Cox, the head of Nissan's motorsports division, first met in 2008, Neville gambled on a mad proposition: that he could take a gaggle of *Gran Turismo* fans, put them in Nissan cars, and find a genuine racer. But Neville isn't exactly short on confidence. "If you gave me 20 bricklayers," he says, "and if they were of the right age, fitness and temperament, with the determination to become race drivers, we would find one with talent and we would train them into a professional driver."

Founded in 2000, RJN Motorsports has a close relationship with Nissan and a record of success that makes it ideal as a virtual racer's university, but RJN struck lucky with its first round of students. Lucas Ordóñez was GT Academy's first shining light, having won in the inaugural 2008 competition. He's since placed second and third in class at Le Mans in 2011 and 2013, and he's also taken a class victory at the Nürburgring 24 Hours, driving alongside Kazunori Yamauchi.

Since Ordóñez, GT Academy has found new talent with each passing year. UK winner Jann Mardenborough shared Lucas Ordóñez's third place at the 2013 Le Mans and is now working through the single-seater ladder.

Ordóñez's own journey started with downloading a demo for 2008's GT Academy. From there, he went through the national finals in *Gran Turismo* pods, and then onto GT Academy's race camp, which is based at Silverstone in the UK. On-track tuition is accompanied by physical training, overseen by a judging panel of experienced racing professionals. After the intensive programme, the best are selected based on raw speed as much as temperament and fitness – the triad a real race driver needs.

> "The GT Academy winners have a unique talent when it comes to adapting to the real thing"

For Neville, taking on a raw talent like Lucas Ordóñez was a revelation. "What surprised us with Lucas was the speed at which he adapted to the track cars," Neville says. "In our experience over the years, the GT Academy winners have a unique talent when it comes to adapting to the real thing." For the team director, a childhood spent playing race sims is a perfect virtual foundation course. "When we took Jann to Monza, he was running competitive laps within five minutes," he says. "*Gran Turismo* clearly educated him."



2013's GT Academy alumni, pictured before their Le Mans class victory. From left: Florian Strauss, Stanislav Aksenov, Nick McMillen and Miguel Faísca

IN CONTROL
GT Academy's success makes for a team that crosses continents. Miguel Faísca is Portuguese, Florian Strauss is German, Nick McMillen is American, and Stansislav Aksenov was the programme's Russian winner. Russia has comparatively little motorsporting activity, so going through GT Academy was Aksenov's only way in. GT Academy harnesses the global appeal of gaming to find talent that traditional routes would never have access to. As for their *GT* setups, the drivers all prefer wheels, favouring the Logitech G27 over Thrustmaster and Fanatec's modern offerings, although McMillen claims he got through to the US finals using a pad.

Neville draws a distinction between motorsport tradition and GT Academy's virtual filter, though. "In the traditional path from go-karts to professionally licensed racing, there's actually no selection filter. Talent isn't as important as money. Licences are earned via experience. You can get pretty far without winning a thing… With GT Academy, the selection process is so tight that the drivers are all winners. The fact they've made it through the process means they're the right fit."

When Mardenborough met

Lewis Hamilton, Neville notes, they talked about games and *Gran Turismo*. It's no secret that many of the current F1 drivers play videogames, and for Neville, GT Academy is the formalisation of a trend that's been building since the '90s. With Nissan committed to racing in Le Mans' highest category in 2015, and with so many *GT* players on the team, the prospect of a virtually trained driver winning one of motorsport's hallowed triple crown events – Le Mans 24 Hours, Monaco's F1 GP and the Indianapolis 500 – seems close to being a reality. ■

Lucas Ordóñez will be heading to Japan to race in the Super GT this year, a move designed to broaden his real-world experience and build on his training since finishing the GT Academy programme in 2008



Access for all

Meet the organisations and developers who are supporting disabled players

Carlos Vasquez can hold his own against the very best *Mortal Kombat* players in the world. He competes in tournaments and reached the finals of his pool at EVO 2013, despite having being rendered blind by closed-angle glaucoma. Vasquez has memorised the game's combos, along with their audio cues, so he can play at the highest level using only what he hears.

Vasquez and many others are indicative of the inclusiveness of gaming as a hobby – take *League Of Legends* player Keith 'Aieron' Knight, whose muscular dystrophy forces him to use his face and feet in lieu of his hands. Even so, there's an accessibility gulf between the massmarket game and disabled players.

Xbox One and PlayStation 4 currently rate "somewhere between apocalyptic and horrible" for accessibility, according to **Steve Spohn**, the COO of advocacy group AbleGamers. The major problem, he explains, is that custom controller support is bare-boned on Xbox One and nonexistent on PS4, meaning that none of the peripherals popular among physically impaired players work.

The steps to make gaming more inclusive are minor, and colour-blind modes are just the start

The World Health Organisation counts over one billion people as suffering from some form of disability, of whom nearly 200 million have some degree of 'profound' impairment. Most of these billion-plus, Spohn says, "only need a little help, such as remapping controls or maybe one device that helps them use an additional input". A returning soldier who lost one of his arms, or a stroke victim left numb on one side, might be easily enabled with a foot pedal. AbleGamers and charity SpecialEffect try to step in with personalised solutions that allow disabled players to enjoy their favourite games even if they can't hold a controller or see what's onscreen. But in most cases, smart development is a better solution than custom peripherals.

Last year, **Brian Schmidt** turned his 25 years of experience in designing audio systems and composing soundtracks for games to developing a title for the visually impaired. *Ear Monsters* entered a blossoming genre of audio games on iOS, where it was met warmly after a few kinks were ironed out. "I naïvely thought that if I played with a blindfold or covered the screen," says Schmidt, "that I would be able to emulate the blind player experience. I was wrong."

Schmidt had the screen automatically rotate so that it could never be upside down, but this left many blind players complaining that the game was backwards, because they often tilt the screen away from them or place the device on their lap. Blind players also struggled to figure out the potential monster positions, represented for sighted players by small circles on the screen. Schmidt learned and added tutorial hints in the game's VoiceOver mode.

The only way to account for these kinds of problems is to get people with disabilities in as testers, he says. Which is exactly what **Lindsay Lauters Miller** is trying to do at *Castle Crashers* developer The Behemoth, where she heads user experience and testing. "Recruitment is always a little tricky," she says, "but we've had a lot of success with getting people to come in via word of mouth and by partnering with different game-related clubs and organisations in San Diego."







From top: consultant Ian Hamilton, AbleGamers' Steve Spohn, and The Behemoth's Lindsay Lauters Miller



Miller's investment is personal: her husband's motor impairments make it difficult for him to handle a controller in a precise way, so she consults the website gameaccessibilityguidelines.com as well as AbleGamers' 'Includification' document when compiling user test reports.

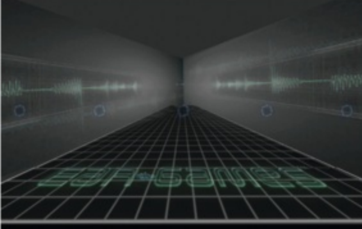
Following accessibility guidelines has knock-on benefits for everyone, too. "What's an impassable barrier for someone with an impairment is usually still a bit of a barrier for everyone else," **Ian Hamilton**, a consultant and former BBC senior designer, explains. "You can't mess with a game's core mechanic; if you do that, you've made the essence of the game inaccessible to everyone, but most accessibility guidelines are simply good game design that benefits all players."

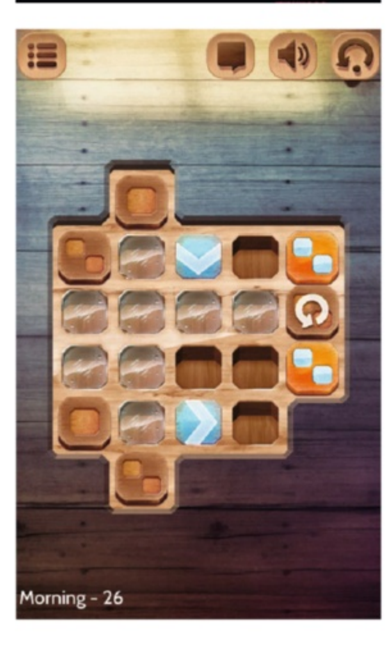
Spohn agrees. "If you have a tutorial that's horrible," he says, "then you're not only shunning the people who have cognitive disabilities, you're [also] shunning everyone who doesn't just want to pick up the game and go."

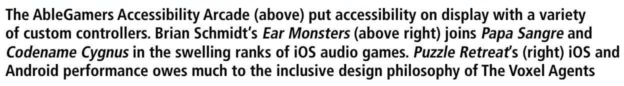
For hardware and software developers, the steps necessary to make gaming more inclusive are mostly minor, and colour-blind modes and subtitles are just the start. Impairment can strike through accident, illness or age, and accessible design, where possible, is an investment that could one day be more personally beneficial than any young designer may yet realise. "Gaming has become a therapy," Spohn says, "and this kind of accessibility has become a quality-of-life issue more than an entertainment issue." ■

The *Mortal Kombat* series is huge in the blind gaming community because of its exceptional audio design








The AbleGamers Accessibility Arcade (above) put accessibility on display with a variety of custom controllers. Brian Schmidt's *Ear Monsters* (above right) joins *Papa Sangre* and *Codename Cygnus* in the swelling ranks of iOS audio games. *Puzzle Retreat*'s (right) iOS and Android performance owes much to the inclusive design philosophy of The Voxel Agents

MONSTER SOUNDS

The lessons learned from iOS game *Ear Monsters*



The challenges of designing an audio game caught veteran sound designer Brian Schmidt off guard. "In traditional game audio," he says, "you avoid repetition, because if you hear the same footstep over and over, it's really annoying." But randomisation made monster sounds too difficult to locate in 3D space, which was essentially the goal of his iOS audio game *Ear Monsters*. "I found myself just trying to latch onto any audio cue I could just to figure out where the monsters were or how fast I had to react." The lesson: each change in sound should be meaningfully tied to artistic intent or something in the physics engine.

The power that's inside

Older cartridges are running out of juice to maintain game saves. Here's how to put them on life support

Sean LaBrecque has repaired a lot of *Pokémon* cartridges. Each week, confused and upset customers bring copies of *Pokémon Gold*, *Crystal*, *Ruby* and various other shades to his Las Vegas-based vintage-game store, A Gamer's Paradise. And they all ask the same question: "Why can't I save my progress any more?"

Like all cartridge-based games released before the mass adoption of flash memory, the Game Boy Color and Game Boy Advance *Pokémon* games rely on batteries to save and back up data. Game data is stored in active memory, and that memory is kept on life support by a tiny three-volt battery that's soldered to the game board. All of these batteries will eventually die; when they do, your game saves will be instantly lost along with them.

It's a problem that affects – or will affect – thousands of old games, but few seem to die as quickly as those in the *Pokémon* series. "I don't really see any carts other than *Pokémon*," LaBrecque says. Even the oldest battery-backed cartridges are alive more often than not, so long as they've been well looked after. *The Legend Of Zelda* was among the first home console games to use a battery to save data, and has in many cases managed to survive some 28 years.

With the second generation of *Pokémon* games, Nintendo introduced a clock that caused certain events to happen based on the passage of time in the real world. Berries on trees regrow after a few days and some trainers offer new challenges every 24 hours. It was a step forward for the series, but one with consequences: to keep the clock running properly, the carts have to pull extra juice from the battery. Thus few *Pokémon* game cartridges retain the ability to save even after just five years.

The good news is that these batteries are replaceable. Using a soldering kit, old ones can be easily switched out. The majority of games, from the original *Zelda* on NES to *Ocarina Of Time* on N64 (one of the few N64 games to use battery saving), contain the same generic CR2032 watch battery, which is available everywhere for pennies. Though many Game Boy games came with slightly thinner CR2025 batteries, most have enough room to spare for a CR2032 replacement, which can even significantly upgrade their lifespans.

All cart batteries will eventually die; when they do, your saves will be instantly lost along with them

Serious game collectors, such as videogamemuseum.com's Mark Weber, future-proof their carts by installing battery clips onto their game boards after removing the original battery. Clips allow collectors to pop new batteries in and out without any future soldering required. Once the clip is installed, batteries can be replaced like any watch battery, though that's not to say that everyone should risk taking a soldering iron to their most prized games. **Michael Marks**, who has written online guides for replacing batteries in old games, urges collectors to be careful. "I screwed up the first cart that I tried to fix," he says. "I think I overheated the circuit board. Now I'm much more cautious about how long I'm holding the soldering iron to the board."



Sean LaBrecque is the owner of A Gamer's Paradise in Vegas

POP OUT
A surprising benefit of installing battery clips in your carts is that you'll be able to replace game batteries without losing your saves. Blogger **Nathan Bias** recommends the "hot-swap" technique, in which you keep power flowing to a cartridge by plugging it into a turned-on console, then swap out the battery while the game's running. "The console is providing the juice to keep the cart alive," he says. "Then, when you turn the console off, it'll go back to the battery." Anyone attempting this technique should take care to ground themselves to avoid harmful shocks.

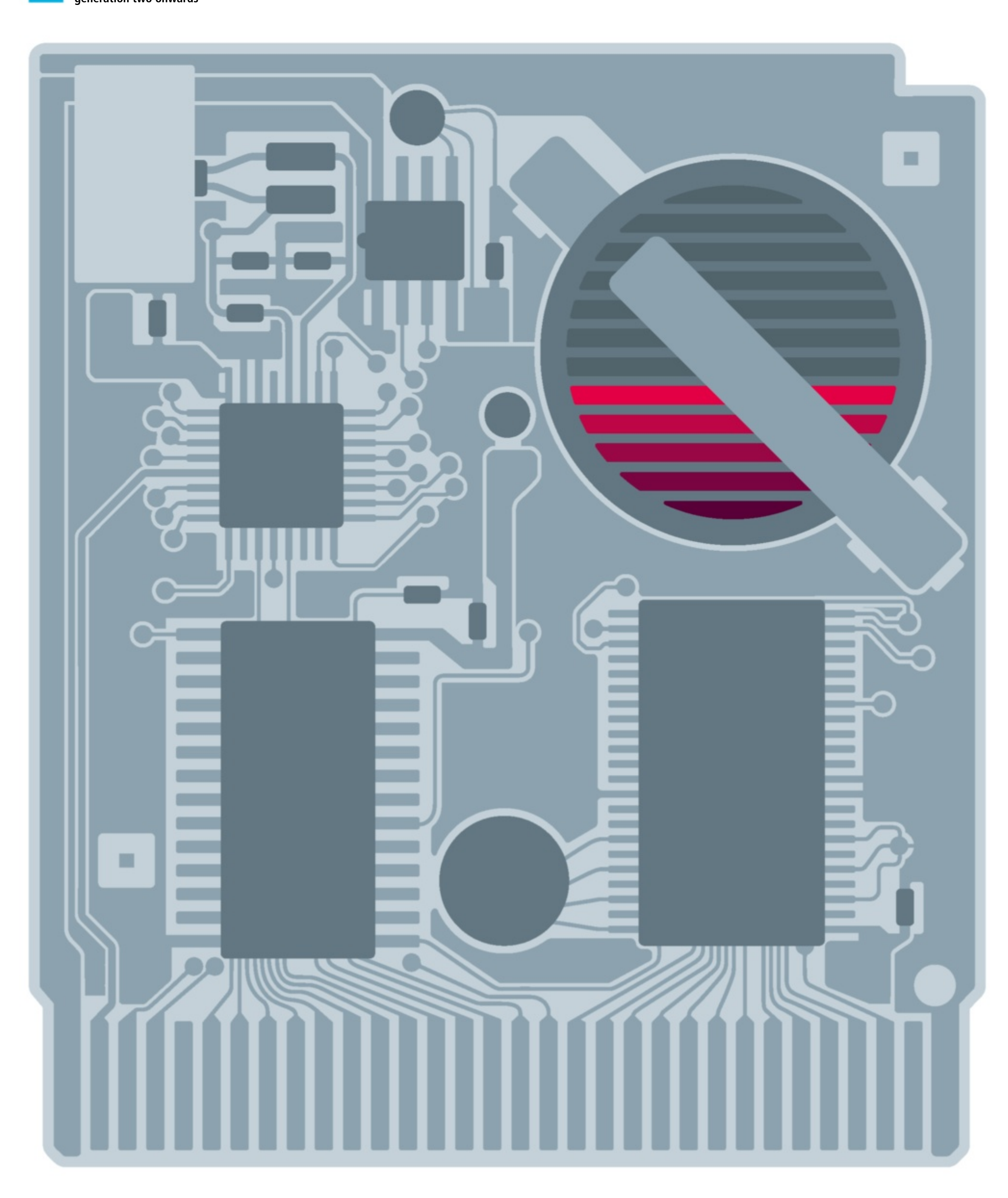
The soldering iron shouldn't be your first resort. Before deciding to replace a battery, it's best to test it with a multimeter. If it still has close to three volts remaining, it doesn't need to be replaced. But while there are battery-replacement methods that don't require soldering knowledge, these are undeniably inferior.

Derek Mead, editor of Vice's Motherboard blog, has successfully used a hot knife to remove and replace a battery in his copy of *Secret Of Mana*, but says he wouldn't recommend that others use the technique. "I didn't have a soldering iron at the time and I didn't feel like ordering one off of Amazon," he explains. "It's a lot cleaner and easier just to solder it."

LaBrecque makes a profit every time he replaces a battery in a game cartridge, but admits that most people are best off learning to solder. "It's not hard," he says. "Familiarise yourself with a soldering iron. Practise on something. An old Game Boy game is the perfect thing to practise on."

Although most old games have been able to last this long on original batteries, LaBrecque expects that we'll begin seeing them finally run out en masse in the coming decade. It's unlikely that most batteries, even ones that have been kept out of extreme conditions, will make it much beyond the 30-year mark. And even owners of modern games and consoles shouldn't feel too smug: flash-based memory isn't truly permanent, even if it can survive up to 100,000 rewrites. God help the antique collector who, decades from now, gets their hands on a copy of *Animal Crossing: Wild World*, and leaves with only one question: "Why won't this mole stop yelling at me?" ■

You'll need a soldering iron to install a battery clip, but it's a longterm fix, especially if what you're saving is a *Pokémon* cartridge from generation two onwards



Soundbytes

Game commentary in snack-sized mouthfuls



"I am winding down Irrational Games as you know it. That is going to mean parting ways with all but about 15 members of the Irrational team."

Would **Ken Levine** lose 100 people for creativity's sake? Or is something else going on?

"I feel deeply ashamed of myself for living a false life. I also apologise to Mr Niigaki."



Resident Evil composer **Mamoru Samurgochi** says sorry for being ghostwritten for decades

"Do we send your browsing history to Valve? No. **Do we care what porn sites you visit?** Oh dear god no. My brain just melted."

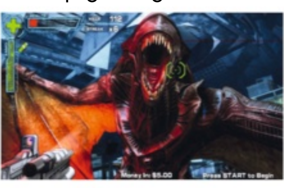
Valve Anti-Cheat won't snoop *too* deeply into browser histories, says **Gabe Newell**

"Hopefully, one day you won't have to give out an award to, say, 'Best Gay Character', 'Best Whatever Character', you can just have good characters."

Naughty Dog's **Neil Druckmann** looks forward to a future for games that can't arrive soon enough

ARCADE WATCH

Keeping an eye on the coin-op gaming scene



Game *Aliens: Armageddon*
Manufacturer Play Mechanix/Raw Thrills

Sega's *Alien: Isolation* is only one of 2014's Alien games. The other, *Aliens: Armageddon*, snuck into arcades early this year in cabinets built by Raw Thrills.

The modern arcade scene is so low-key that the news of another Alien game might come as a surprise to many, but that it's a sequel should surprise even more. *Aliens: Extermination* has been swallowing coins since 2006, with a ludicrously out-of-continuity return to LV-426 and armies of hostile Weyland-Yutani androids.

From a typically ostentatious Raw Thrills cabinet, *Armageddon* tells an even more outlandish tale of escape from an Earth entirely overrun with Xenomorphs. There are 55- and 42-inch models available, both repurposed and repainted versions of Play Mechanix's own *Terminator Salvation* coin-op, from which *Armageddon* borrows its pacing and mechanics, too.

But it's Play Mechanix that's perhaps the biggest surprise of all. The company's beginnings, in 1995, were modest, but the studio has grown to become one of the biggest players on the American arcade scene thanks to the bar-friendly *Big Buck Hunter* franchise, introduced in 1999. The revenue stream generated by regular updates to the hunting sim has supported a handful of original projects alongside work on Raw Thrills' biggest licences, such as The Terminator, Monopoly and Wheel Of Fortune. No wonder Raw Thrills now owns the studio.



My Favourite Game Kristian Nairn

He may not talk much as Hodor, but the actor and DJ has plenty to say about Blizzard and an on-set iPhone mishap

Standing at six feet and ten inches tall, **Kristian Nairn** is the perfect fit for the role of Hodor in HBO's Game Of Thrones. But when he's not playing mule to Bran Stark or DJing alongside the Scissor Sisters, you'll find him playing games, through probably not *Pokémon*.

THE BFG
Born in Belfast, Northern Ireland, Nairn is best known for his portrayal of Hodor, the kindly giant in Game Of Thrones. Prior to getting the role, Nairn was a successful DJ, having played sets with Scissor Sisters, Mylo, Calvin Harris and Alphabeat, and was also part of bands Daddy's Little Princess and AJ Suzuki. He even has a nonplayer character named after him in *World Of Warcraft* – Nairn, a horned blue troll that you can find in the Celestial Tournament.

How did you find yourself playing Hodor on Game Of Thrones?
It was an audition I did four or five years previously for the film Hot Fuzz. Nina Gold – she was the same casting director [on] Game Of Thrones – remembered me for the part and said, "Would you put yourself on tape and we'll have a meeting?" And the rest is history.

Do people play games on set at all?
Isaac [Hempstead-Wright, who plays Bran Stark] would tend to bring his iPad but I don't bring any technology to set, because Isaac would probably break it. He's broken an iPhone. My iPhone. The first day I met him, he broke my iPhone. I had the Harry Potter Spells app and, in fairness to him, I had this ridiculous Diesel case, and he was like, "Oh, can I do Expelliarmus?" So he made the Expelliarmus motion and the phone went flying through the air. But that's a good way to meet your co-star…

What's your earliest gaming memory?
I was always an Atari fan. Not the consoles, mind you. I had the computers, the 800XL. I always liked to try to write my own shitty little programs. I remember games like *Galaxian*, *Defender* – *Pac-Man*, obviously. There was a game, it was literally the most basic game you could imagine, it was called *Leggit*. It was a stickman and there were maybe 12 lines onscreen, and it would have moving holes, which you had to jump, trying to get to the top of the screen. Dude, it was the most addictive game!



Which machine came after that?
Well, I'm a musician, so I moved on to the Atari STs and STFMs for music production, but the first proper console I had, I think, was a Super Nintendo. I had a Mega Drive as well. I was kind of spoiled for choice at that stage. That was when my addiction really started. I loved all the *Sonic* games. I still don't think, in some respects, *Street Fighter II* and the original *Mario Kart* have been bettered.

> "He was like, 'Oh, can I do Expelliarmus?' So he made the motion and the phone went flying"

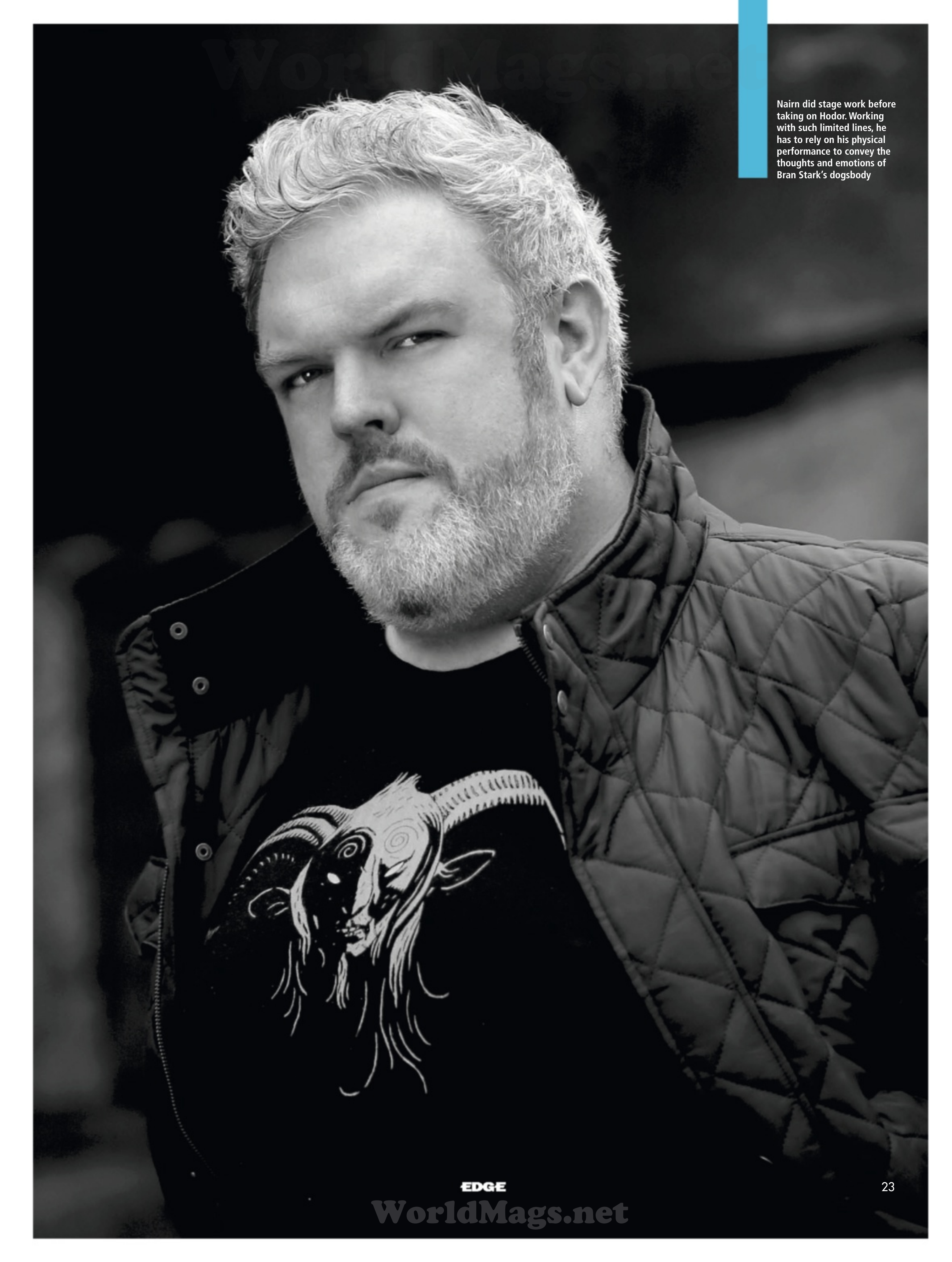
How have your gaming tastes changed?
Well, I ended up getting the original Xbox, and I got addicted to *Jet Set Radio Future*. I thought the music was incredible; it had all that sort of Japanese-style music in it, like Cibo Matto. I would love them to do a version for Xbox One, which I have now. I've had two 360s, two Wiis and two PS3s. I would buy a console, play it for a while, sell it, get the next one, and then a game would come out I wanted to play, and I'd have to buy another.

Are there any types of game that you won't play?
I don't get on with *Pokémon*. I'm just not very good at being tactical. I brought my 3DS over to LA the last time I went to see Jake [Stormoen], and we played a lot together and he kept beating me. One day on the aeroplane, we were travelling between DC and LA, and I said, "Fuck this! Never again!" And that was true.

What game are you most looking forward to in 2014?
I'm really looking forward to *The Elder Scrolls Online*. I didn't love *Skyrim*; well, I *did* love *Skyrim* but I prefer it to be more guided. Not on rails, but I sort of got lost after two hours of gameplay and went, 'Fuck this, I'm going to play *Warcraft*'. But I love the idea of it being online like a whole universe. I've been playing *WOW* since about three weeks after it came out. Just like with everything, I get bored with it sometimes, but I love it just as much as the day I got it.

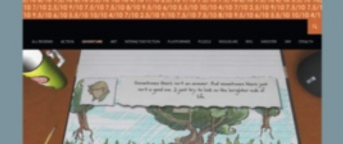
Out of everything you've ever played, what's your favourite?
I'm going to go with *World Of Warcraft*. I have to. Just because there's so much to do. You can go off in your own little world and you can sink so much time into it and it's neverending, and I like that.

What do you think Hodor's favourite game would be?
It's definitely not *Words With Friends*. I'm thinking like a childish game; he'd probably like *Mario*. I think he'd like the pretty little flowers and the Venus flytraps, and the mushrooms. I wonder if he had a few too many mushrooms at one stage and that might be the problem. ■



Nairn did stage work before taking on Hodor. Working with such limited lines, he has to rely on his physical performance to convey the thoughts and emotions of Bran Stark's dogsbody

WEBSITE
Objective Game Reviews
www.bit.ly/1gF0PEM
Objective Games Reviews may be an extended prank, its mission to extract every last morsel of critique from game reviews in favour of a factually indisputable breakdown of a game's mechanics, key features and plot. "Booker must fight his way through police officers and others, like people who can turn into crows and back into people indefinitely until Booker kills them," is an absurd sentence, after all. But given the thoroughness of the joke, and the comprehensiveness of the site's manifesto, there exists the possibility that Objective Games Reviews is not whimsy, but a very real response to some players' demands for stupid things like opinions to stop clouding critics' opinions about games. Either way, it's the place to go if you need a game described in painstaking detail.





VIDEO
Twitch Plays Pokémon
www.bit.ly/1eUxx8u
Twitch Plays Pokémon runs a hacked version of *Pokémon Red* that makes all 151 Pokémon available without trading, but that's only one of the curious things about this channel, which allows viewers to control the button inputs via the chat box. Its creators have given full control to the users, right down to choosing whether the emulator runs in Anarchy mode, where the input of every user is applied at once, or Democracy mode, where everyone votes on the next action in 20-second intervals. In both cases, chaos and comedy usually ensues.

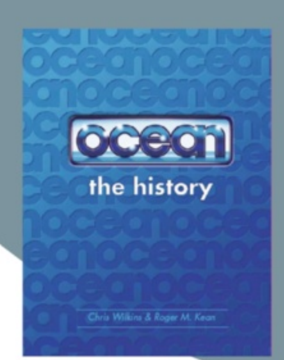
WEB GAME
Real-Time Chess
www.bit.ly/OGGzv2
Everyone thinks they can change chess for the better. Even *Street Fighter II* rebalancer David Sirlin is taking a shot with *Chess 2* for Ouya, where he's reducing the importance of memorisation and largely eliminating the possibility of a draw. It has a teleporting queen, and you win if your king crosses the midline. Sven Robbestad's solution is simpler: remove turns, with a short cooldown time on each piece moved. Book-learned chess knowledge and sequence memorisation is still powerful, but a player working quickly and creatively can run rings around one accustomed to move and counter-move. Vulnerable pieces are vulnerable for time rather than a turn, and the game combines the quick wits and keen eyes required for speed chess with the fast reactions needed for *StarCraft*.



THIS MONTH ON EDGE

A rhapsody of trinkets that distracted us during the production of **E**265

BOOK
Ocean: The History
www.kck.st/1jxirVW
With its licensed games and arcade ports, Ocean grew to become Europe's biggest game publisher and developer in the '80s, until the transition to consoles threw it into conflict with Japanese and American publishing giants. Ocean: The History, created by Chris Wilkins and writer Roger Kean, catalogues the company's games, music and art, and tells its story in the words of close to 40 former Ocean staffers. For the most part, they're stories of little consequence, but that's rather the point: the rise and fall of Ocean is a dry tale, but the half-remembered anecdotes of drunken fistfights and canned games from the publisher's programmers, marketers, artists and warehouse managers all paint a fond and vivid picture of simpler days.



continue

Left Behind DLC
Can any other studio match Naughty Dog for characters nowadays?

Price is right
Xbox One + game for £400 is a much better match for PS4's £350

Card revolution
Titanfall's burn cards look to redefine the multiplayer perk

PS4 VR
Sony's imminent entry makes the virtual reality wave unstoppable

quit

Original sin
New DLC for *Arkham Origins*. Shame the game still isn't fixed

Price is wrong
Xbox One early adopters suffer, but when do they not?

Dungeon Keeper
EA squanders Bullfrog's legacy with in-app purchases. How evil

More layoffs
Good luck to all affected at Sony Santa Monica, Turbine and Irrational



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TWEETS
It's 2014. Can we admit that companion apps and second screen gaming are dumb and give dev teams that time back to use elsewhere?
George Broussard @georgeb3dr
Co-founder, 3D Realms

Played *Flappy Bird*. Learned two things: (1) I know nothing about games, (2) I suck at *Flappy Bird*.
Mark Nelson @BlueDev
Freelance designer and writer

Wall running is the new cover.
Cliff Bleszinski @therealcliffyb
Independent developer

In 1999, I visited Hans Zimmer's studio in Santa Monica, Media Ventures, to ask Harry for *MGS2* music. The studio was like spaceship bridge.
Hideo Kojima @HIDEO_KOJIMA_EN
Director, Kojima Productions



DISPATCHES APRIL

This issue, Dialogue sees **Edge** readers baffled at Ken Levine's decision to take the rap for shuttering Irrational, rapturous at the place *Minecraft* has blocked out in the lives of children, and irritated by immersion-killing QTEs. Then **Steven Poole** gets his body moving as he plays *OlliOlli* and ponders why we sympathetically jig along to games, **Leigh Alexander** pities the creator of *Flappy Bird*, Dong Nguyen, and questions the rule of the online mob, while **Brian Howe** offers a handy list of common fixes to the technical problems that are besetting early console adopters.



www.edge-online.com
Discuss gaming topics with fellow **Edge** readers



Issue 264

Dialogue

Send your views, using 'Dialogue' as the subject line, to edge@futurenet.com. Our letter of the month wins an Ear Force PX4 headset from Turtle Beach Inc

Bioshock Finite

The sudden demise of Irrational Games was one of the most bizarrely public studio closures I ever remember reading about. Normally, these things are done quite differently, with axe-wielding publishers either confirming rumours leaked by newly unemployed staff to news websites, or pushing out a three-line statement to the stock market. As such, Ken Levine's very public, and seemingly honest, mea culpa should have come as a breath of fresh air. Instead it was deeply confusing, and invites as many new questions as it answers.

Perhaps the biggest is this: why did Levine feel the need to take the whole studio down with him? He may have been the creative fulcrum there since its inception, but surely there is sufficient talent within Irrational for it to continue without Levine at the helm?

Clearly, we're not getting the whole story. Reading between the lines of the various anonymously sourced blog posts and the hastily deleted tweet that followed the news, Levine wasn't exactly a delight to work for. It certainly takes arrogance to assume that the 200-person studio you built would fall apart without you, and I feel sorry for the 15 people whose careers he elected to save. Imagine spending all day at work wondering when the boss is going to wake up one morning, change his mind, and dispatch you to the back of the dole queue.
Name supplied

Second cube to the right

It's the school holidays. It's 7AM, hours before breakfast, but my seven-year-old is already playing and talking with many of her friends. Some she knows from school, or they live nearby. Many others she has never met, but knows them just as well. They get together like clockwork and will spend the next few hours visiting and playing in each other's worlds as well as discussing, planning, inventing and building new worlds. They moderate themselves and vet unknown newcomers by the simple combination of voice chat and in-game behaviour. Good behaviour is ensured through the value of belonging to the group. Voice chat is the order of the day, and anyone unwilling to shed inhibitions and scream down the mic when confronted with a Creeper will be swiftly sidelined. They happily, instantly accept friend requests, but will just as quickly, and sometimes viciously, kick and block someone who does not behave or fit the group profile.

I am no stranger to online gaming, a veteran of the high-ping railgun headshot era, but this is different. This is not gaming, this is a parallel universe for kids. The collaboration, commitment, creativity and community that *Minecraft* inspires within these kids is jaw-droppingly revolutionary. In this over-protected, dumbed-down, congested, polluted, corrupted world that we have handed to them, these kids have found something that us older folk only ever dreamed of. They have found Never-Never Land.
Paul Forsythe

Minecraft's cultural saturation is staggering indeed. You may need an Ear Force PX4 headset more than most, to save you from those 7AM Creeper screams. It's on its way.

Cost of sales

Jason Rohrer's claim that big discounts like those seen in Steam sales "screw your fans" (Soundbytes, **E**264) certainly has a point, but I feel he is missing the big picture. Early adopters always get screwed eventually – it's the price you pay for wanting things as soon as they're available. You can nip out to the shops today and return home with a 360 for £130, but does anyone who paid £350 for a machine on launch day really wish they'd waited for seven years so they could save themselves a couple of hundred quid?

That's an extreme example, but the argument holds on a smaller scale too. A quick scan of my Steam library reveals a host of games that I would in all likelihood never have bothered with had they not popped up in a sale, but which I have come to love dearly. *Sleeping Dogs* didn't seem worth £40, but for £4 I was prepared to take a punt, and I loved every minute of it. When United Front's sequel, *Triad Wars*, comes out, I'll be there on day one.

And this is the point: sales may 'screw' a number of fans, but they win you many more. Getting front-page prominence for an old game through a Steam daily deal gives a much-needed boost in an industry that is always so laser-focused on new releases. Discounts give games longer tails, raising developers' reputations, expanding their audiences and keeping them in business. There are exceptions – I feel for anyone who backed *Godus* only for Peter Molyneux to slash its price in half while it was still an alpha – but that game's problems go a long way beyond merely the cost of entry. Rohrer's respect for his audience is, by contrast, commendable, but things aren't quite as black and white as he suggests.
Ian Lovell

Media flapping

This is somewhat a response to both Leigh Alexander's excellent article in **E**264, discussing how social media is affecting the gaming industry and the way in which we play games, but also I suppose the recent social media storm that occurred with the *Flappy Bird* phenomenon.

The fact that the game received so much press due to its short lifespan got me thinking. As a community, are we really maturing?

For years, the industry and gaming community as a whole have both been trying to shirk that image of antisocial shut-ins living in their mothers' basements and glued to PC screens 24/7. The image of videogames as more socially acceptable and a cultural art form has definitely come on leaps and bounds recently, with games such as *The Last Of Us* leading the way, and people such as Charlie Brooker spearheading the effort to make games more acceptable in the mainstream media with shows like How Videogames Changed The World. He definitely came out of it looking better than Jon Snow did during his explanation of PS4 for Channel 4.

Yet when things like *Flappy Bird* do come along, the first response from the gaming community at large is one of loathing, in this case to the point of Dong Nguyen having to remove his game from iOS in an attempt to stop the grief he was receiving via social media. The most vocal section of the gaming community doesn't represent the majority, yet it's the part that the world at large will see and it doesn't paint a pretty picture. I doubt if a similar response to someone finding such success through a similar project would be found in other media. It just makes me wonder, when such immature events like this take place, can we really say that we're maturing as a community?
Ben Monro

Almost all communities contain fringe elements, and it's all too easy to overlook the whole when the shouting begins. Leigh discusses this topic on p32.



Ryse: Son Of Rome diminished agency in favour of spectacle, says Adam Kirrane



Don't push it

There is a fine line between guiding a player's experience and controlling their actions, and I think some developers don't know when they've crossed it. This new generation is being defined by an increasing level of player control. Players now are able to shape their own stories, and the stories of others, in *DayZ*; decide their own path in *Elite: Dangerous*; and even create their own games in *Project Spark*. 'Procedural' and 'open world' are the new industry catchphrases. Yet developers still feel the need to prompt players into completing certain actions.

Edge recently did a piece on breadcrumb trails, which I think can be one of the most effective ways to guide players if they strike the right balance and work within the game. But breadcrumb trails aren't the most problematic way of prompting players.

Quick Time Events as we know them have no place in games. Usually, the whole point of a QTE is to create a sense of immediate threat, but these events completely undermine the threat they create for the player. They are reductive, and rely purely on the player's working knowledge of their controller. When a QTE is triggered, the player is automatically removed from the narrative to press the stated button with varying degrees of speed and success, and they are also removed from whatever behaviour is the outcome of their success by the delay between their actions and the character's response. I was incredibly disappointed to see that a next-gen game like *Ryse: Son Of Rome* included QTEs in its combat to such an extent.

> "This is the point: sales may 'screw' a number of fans, but they win you many more"

When I said that QTEs as we know them have no place in games, I meant it, but, just like breadcrumb trails, they may yet be an effective way to prompt players if they too can strike the right balance. Perhaps developers could simply get rid of those floating, pulsing controller buttons and instead allow the player to use their common sense to avoid or defeat a threat. Or perhaps they could create events that require something more than a split-second decision to defeat the oncoming threat, as in *The Walking Dead*, when you have to grab the shotgun and the single shell to kill the zombie dragging its way towards you. However, until someone finds a way to make QTEs less tedious and contrived, I hope that more developers will follow the example of *Castlevania: Lords Of Shadow 2*, and give us the option do away with them entirely.
Adam Kirrane

If a QTE is optional, why include it in the first place? That said, we'd rather be able to turn off QTEs than have to endure them. ■

ONLINE OFFLINE

Join the discussion at www.facebook.com/edgeonline

Ken Levine shuts Irrational down, but keeps 15 employees

Come on now, let's not be irrational about this!
Harry Stuart Chalcraft

Seems like a dick move to lay off more than 100 people just because he wants to do something different.
Phillip Bock

Well I wish the best for the employees being laid off by this dude…
Cody Clemmons

Is it me, or is "narrative-driven" and "highly replayable" a bit oxymoronic?
Steven Efremov

I think that's the point. He wants to meet that fundamental challenge and create somewhere where currently it is a paradox/oxymoron.
You can debate the merits of his decision on how to get there, but to clarify, that's what he's attempting to convey.
Brent Fisher

Wow. Brave move to walk away from such a big series. Fingers crossed that whatever Ken and co go on to build will be as amazing as the worlds of Rapture and Columbia. Good luck!
Fraser Dunstan





marshdavies.com



STEVEN POOLE

Trigger Happy

Why do games have the power to physically move us with their onscreen action, even when it's pointless?

Skateboarding is something I've never done. If God had meant us to travel that way, he would have given us vulcanised rubber wheels for feet. But a few clumsily negotiated levels into Vita's lo-fi 2D abstraction of the sport, *OlliOlli*, something clicks and I am nailing landings and catching gargantuan air, bro, or whatever skaters say. Oddly, I am also doing something else. My torso and neck are stretching upwards as my chunky avatar flies up into the air, and jerking back down as I stab the landing button and hear the crack of wheels on concrete. My cervical spine is undulating like that of an overexcited goose. Maybe this game can put chiropractors out of business.

Perhaps you do the same kind of thing, at least in some games. A lot of people practice the 'racing game lean', where you tip over sideways from the waist as your pretend car goes into a bend (and if you need to squeeze an extra quantum of turning power out of the vehicle, you tilt the joypad as well). Or maybe you hunch slightly when diving into cover in a shooter, attempting to retract your head tortoise-like into your shoulders under a hail of enemy bullets.

What is going on in this kind of psychomotor imitation of the virtual action? It looks like it must increase the cognitive load of playing the game, since we are changing the angle at which we view the screen as well as coordinating unnecessary muscle movements. My sympathetic half-jumping while playing *OlliOlli* on a handheld console, in particular, means I'm not even able to keep my full attention on the gameworld while my character is in the air. But I can't help myself.

One way to interpret it would be as a kind of magical thinking, whereby the player unconsciously believes that her extra physical actions will somehow influence the game. And perhaps just such a diagnosis of this widespread habit was a factor in the development of motion-sensing technology like Kinect. "Hey, look at all these people implicitly wishing they could control games with their bodies! Let's allow them to do just that!" But it turns out that players don't want to do this, at least not all the time and in all games. Perhaps the psychomotor-imitation habit is just our automatic way of attempting to resolve the cognitive dissonance between the dynamic onscreen action and our own corporeal stillness. If so, we should expect that the more exciting the in-game motion is, the more our bodies will try to keep up with it. That seems to be the case for me with *OlliOlli*.

> My cervical spine is undulating. Maybe this game can put chiropractors out of business

Why, then, is the game's apparently simple movement so thrilling? *OlliOlli* is a lesson in how a deliberately tricky control scheme can, once mastered, afford more pleasure than giving the player an easier ride from the start. Once you get the timing right, the rhythm of flying up into the air and then landing again becomes intoxicating. Arguably, there is not even any real-world analogue to the mandated inputs – it's not as if you have to do anything while falling in real life to make sure you hit the ground. There was more structural verisimilitude in Nintendo's snowboarding classic *1080° Snowboarding*, which required you to match the angle of the board to that of the slope at the point of impact. *OlliOlli* substitutes for this a binary rhythm-action challenge, but the effect is the same: in both games, achieving humongous air is all the sweeter.

In the satisfactions of getting its timing right, *OlliOlli* also reminds me of the beautifully gratuitous musical follies that are the reward level at the end of each world in *Rayman Legends*. Here, Ubisoft's modern classic becomes a rhythm-action platformer as you race through a level cleverly designed to match the beat structure of the music. Mariachi Madness, deliriously scored to a guitar-and-kazoo version of the Rocky theme music, has a moment with two undulating snakes, one safe (green) and one fatal (red and spiky). It results in baffling repeated instadeath until you figure out that you should jump in time with the music, and then it's a comedy rush all the way home.

We all have our favourite example of videogame jump engineering: *Manic Miner* and *Jet Set Willy*'s parabolic sound effect somehow made the jumping endlessly entertaining. (I never quite understood, on the other hand, why the allegedly 'floaty' jumping in *LittleBigPlanet* made some people angry.) And the *Mario* games, of course, are the kings of jumping as both symbolic expression of freedom and also comedy weapon. It is as much in this lineage as in that of indie-sports games, I think, that *OlliOlli* deserves to take a creditable place. It is essentially a platform game.

And in all these games I have experienced the phenomenon of psychomotor imitation, sitting up straighter and stretching my neck desperately in the hope that my jump will make it this time. If it doesn't, of course, the beauty of videogames is that you always get another shot at that liberating departure from the all-too-solid ground.

Steven Poole's Trigger Happy 2.0 is now available from Amazon. Visit him online at www.stevenpoole.net



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LEIGH ALEXANDER

Level Head

Flappy Bird's swift nosedive from a great height serves to illustrate the dangers of participatory online culture

There has to have been a time when I didn't feel like I lived in public, but I just can't remember it. I don't mean only about my work (anyone who thinks writing about games isn't subject to much scrutiny has probably forgotten how many comments on game articles they themselves have left), I mean just as a person who uses the Internet and social media, where the din of a collective conversation is constantly roaring.

In January, I published an eBook called Breathing Machine, a memoir of my first days online and how it always felt like I was one of a small clutch of people stumbling through the mysterious digital cracks of the visible world, there to find weirdness and adventure. Now the Internet is the visible world's primary frontier. We're all Googleable, and all of these things with our real names attached are there forever. You think you can evade the many-eyed gaze of the Twitter collective, but someone will find you. Someone will tell everyone who and where you are.

I often feel like game culture has a special dependency on online conversation, even relative to this 'new normal'. At least, that's the only theory I have about why colleagues and I often have more Twitter followers than some cult celebrities and TV journalists I idolised growing up. Mostly, this is a good thing – our medium is about interaction, action, reaction, and participatory culture is a boon to the world of play, to its very nature.

I think people who play videogames are more intelligent and more sensitive than people who don't. I mean, I might be biased, so let's round out the generalisations: I also think people who play videogames are more childlike, demanding and consumptive than people who don't. To me, that means the natural downsides of broad online interaction are emphasised, just as a pebble tossed in a lake makes big waves. That a small event – a thoughtless comment, a tiny game release, say – can provoke such a tidal wave of reply, of urgent, emotional (or hateful) reply, seems destructive to us as players. 'Everyone gets to be heard' is a lovely idea, but becomes destructive when we forget we're one of tens, sometimes thousands of people who suddenly want to talk to the same person.

> For a few days, Flappy Bird was a prime debating point. Everyone wanted a chance to be heard

Flappy Bird was a small, free mobile game with simple, masochistic game mechanics and a borrowed (to put it very generously) retro aesthetic. In other words, it ticked every box on the entry form for indie game success. And it was a success, earning some $50,000 a day in ad revenue and endless viral publicity. Twitter users wanted to chat about the game's brutality, its sheer absurdity, its supposed awfulness, and more and more players wanted to see what all the fuss was about.

But the story of *Flappy Bird* became a sad one: its creator, Dong Nguyen, decided to take it down from the App Store after a short life on the market. "I cannot take this any more," he wrote on Twitter. He also tweeted: "I can call *Flappy Bird* is [sic] a success of mine. But it also ruins my simple life. So now I hate it."

Even positive attention can be very overwhelming for people who aren't prepared to imagine that a small action – releasing a simple game, one of the uncountable App Store hordes – just might consign them to scrutiny en masse. But Nguyen paid a particularly high price for becoming an overnight sensation: the press billed him as a ripoff artist. Even more unfortunately, resentful developers were quick to try to ostracise the Vietnamese developer as an outsider. They seemed to 'other' him as one of the evil clone engineers who threatened their supposedly automatically legitimate western development community.

For a few days, *Flappy Bird* was a prime-time debating point. Everyone wanted their chance to be heard. Some saw it as a moral issue on which they had to take a side. Some thought it was an investigative opportunity to dig into Nguyen's life, there to find out whether to support or discredit him. Others saw it as a great big raucous laugh.

But probably most people wrote a tweet or two about *Flappy Bird* and forgot about it. The impact of a tidal wave might be determined by its extremes, but its volume is quantified by all of the noise in between. It was too much for Nguyen.

I think it's a terrible thing that happened to him. You might not agree. The fact that game developers are closer to their audiences than ever now has created innumerable opportunities for market disruption – they can develop and iterate in public with the contributions of the very players they want to address. They can fund nontraditional projects. They can access tools and forums and create and self-publish any game they like.

But in the *Flappy Bird* episode, I see an unfortunate example of how, thanks to the noise of social media, participatory culture online may not always be good for games – not unquestionably, not without caveats. The game industry can benefit from its relationship with crowds, but we can no longer presume naïvely to rely always on crowd 'wisdom'. Nguyen might, like any game maker, have wished for success. But he didn't ask for this.

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BRIAN HOWE

You're Playing It Wrong

Problems with your new hardware? Here's a list of common fixes to early-adopter teething troubles

Xbox One and PlayStation 4 have both hit the marketplace with a bang – in rare cases literally, since .01 per cent of units sold have reportedly exploded for no clear reason upon being powered on for the first time, spraying deadly shrapnel through the dens of innocent gamers. We still don't know whether this small but statistically significant number of 'suicide consoles', as players have dubbed the machines in fearful whispers, stems from severe manufacturing errors or a ploy to introduce a Russian Roulette-style element of excitement to purchasing a new gaming machine. But one thing is certain: as is always the case with new technology, early adopters are serving as guinea pigs for a range of design flaws that more patient consumers will never have to face.

As a public service, we've compiled a list of solutions for the most commonly reported new console woes of this generation. Sure, you could easily look them up on the Internet via either console's web browser. But one good thing about a magazine is that there's virtually no chance it will blow up in your face – just in case it does, we refer you to the indemnity waiver on p137 of your subscription contract, which protects **Edge** against any liability in the event of spontaneous combustion. Not, of course, that you would still be able read it.

Problem: "My console's disc drive makes a shrieking sound." **Solution:** There are three reasons why this problem could occur. First, there might have been a simple mechanical error, in which case you should try and fail to repair the optical drive yourself, thereby voiding the warranty, and then shell out for a new machine. Second, your disc drive might be inhabited by vengeful sirens, in which case you should plug your ears with noise-cancelling headphones and lash yourself to your X-Rocker gaming chair, lest their song lure you to the nearest watery grave – which will quite probably be a toilet. Third, your console is about to explode, in which case you should make peace with your gods in the moments left to you.

Problem: "My console won't install important updates." **Solution:** If you're certain your Internet connection is working, you may need to cycle your console by holding the power button for five seconds, simultaneously rubbing your belly and patting your head for 11 seconds, reciting US capitals in alphabetical order for 17.3 seconds, and then unplugging the system for 30 seconds. This occult ritual gives the magical maintenance gnomes who live in your console time to take a smoke break, which their trade union requires, as they watch your exertions through the grilles for their cruel entertainment. If this doesn't work, it's possible that you live in a mud hut and have tried to plug your console into a goat's arse.

Problem: "Help! My PS4 won't stop running mediocre platforming software." **Solution:** Remove *Knack* from your disc drive, destroy it with a meat tenderiser, and then restart your console with a better game in it.

Problem: "OMFG, A BLUE OR RED RING OR LINE IS TOTALLY BLINKING!" **Solution:** OMFG! You are totally right to panic if a light of any shape or colour blinks, because even though blinking lights are instantly fatal to videogame hardware, console designers perversely insist on using them. At this point, many troubleshooting guides offer lame suggestions along the lines of "turn off your console for ten seconds", like a doctor advising someone with a sucking chest wound to take an aspirin. Or they'll advise you to pamper your hot-blooded console by placing it on a pedestal sculpted from Gläce Luxury Ice and blasting it with axial fans. But there's only one sure way to save your console from this scourge: pry off, shatter or otherwise disable any light that looks like it's even thinking about blinking as soon as you take your new console out of the box. Easy peasy. It's really dumb that no one has thought of this yet.

Pry off, shatter or otherwise disable any light that looks like it's even thinking about blinking

Problem: "My console cost a king's ransom, and now it keeps making my smartphone tweet at my refrigerator, and I'm pretty sure it's reporting my every move to shadowy government surveillance agencies." **Solution:** Disable Kinect, rendering your console useless, and dust off your ZX Spectrum, which won't run *Halo 5*, but also won't turn your den into an Orwellian police state.

Problem: "There's smoke seeping out of my console." **Solution:** Contrary to what you might reasonably guess, this doesn't mean your console is about to explode. Excessive amounts of smoke coming from your console is a sure sign that the magical gnomes inside it have gone on strike because of your failure to cycle, and have begun to smoke furiously in protest. Your best bet is to murder the gnomes by submerging your console in the bathtub, though if the hardware survives, you will of course no longer be able to update it.

Problem: "My console seems to be the death knell for a once-mighty company." **Solution:** You have somehow purchased a Wii U, even though Nintendo went to such great lengths to conceal its existence and function. Use it as a paperweight and buy another console immediately.

Brian Howe writes about books, games and more for a variety of publications, including Pitchfork and Kill Screen

#265

HYPE

THE GAMES IN OUR SIGHTS THIS MONTH



Explore the iPad edition of **Edge** for extra Hype content

Never-ending stories



So long, Irrational Games. Ken Levine's announcement that he was winding down the studio behind *BioShock* sent a shockwave through the industry, or at least the parts of it that hadn't already heard the rumours. It's not too surprising, though. Levine is a storyteller, not a game maker, at heart. The six-year wait between the original and *Infinite* was no doubt as frustrating for him as it was for the players anticipating the sequel, and the programmers and designers who had to build the game to support the script.

Amid all the confusion over why Levine so publicly took the fall for firing almost an entire studio, one thing was made clearer: the future of videogame storytelling doesn't lie with 200-person teams. Even Hideo Kojima is turning his back on cutscenes, and we hope audiologs won't last much longer either. Innovation in this area tends not to come from studios labouring away on a project for six years, but from smaller teams instead.

One such studio is The Astronauts. In our first look at *The Vanishing Of Ethan Carter* (p38), Adrian Chmielarz – himself a veteran of protracted big-budget development – explains the need to balance how narrative is delivered with agency. He wants to give players room to work things out for themselves without leaving them completely clueless. It's especially important for a game in which you play a detective, but it's a concept that applies to many more genres than this.

Levine says he will focus on "narrative-led games that are highly replayable", which is surely the author's Holy Grail. He has spoken of his interest in procedurally generated storylines, and at GDC this month will discuss what he terms "narrative Lego". Perhaps he will deliver on his promise. Hopefully, it won't be six years before we find out. But can Levine, or anyone else, deliver anything as rich in story potential as *Rust* (p50)? An ever-growing number of players have no need for an auteur's story. They're too busy making their own.

MOST WANTED

Bayonetta 2 Wii U
Capcom's *DMC* trademark registration set tongues wagging, but forget that: Japan's last great brawler developer is making this. Our heroine opens the latest trailer by asking,"Did you miss me?" More than you could ever know.

Metal Gear Solid V: The Phantom Pain 360, PS3, PS4, Xbox One
That *MGSV* amuse-bouche *Ground Zeroes* has a runtime of just two hours speaks volumes for how the series has changed. With cutscenes now audiologs and the linear action becoming a branching quest structure, *MGSV* will be about much more than a new voice actor.

Rime PS4
This visual blend of Ghibli, Ueda and *The Wind Waker* was one of Gamescom's brightest surprises. The elevator pitch (*Gauntlet* meets *Minecraft* meets Jason And The Argonauts) doesn't exactly fit that gorgeous trailer, but *Rime* fills a gap in a generation in need of blue skies.



THE VANISHING OF ETHAN CARTER

Dark visions cloud The Astronauts' open-world crime thriller

Publisher	The Astronauts
Developer	In-house
Format	PC
Origin	Poland
Release	2014

There's blood splattered across the front of the railcar we find abandoned on a rickety bridge over a lake. As we draw near, the word 'Inspect' hovers over the mess, and selecting it fills our vision with a swarm of observations: 'Fresh blood', 'Human?', 'Few days?' and then, 'Clean ground…' There's no further exposition, leaving you to conclude that, whether it's the result of an accident or foul play, the incident must have happened elsewhere. Developer The Astronauts is particularly proud of the light touch with which it has implemented its 3D interface, and it has complete faith in you, too.

"Voiceovers are the wrong way to go about it, because we trust the players," game designer **Adrian Chmielarz** tells us. "You can see that there is blood, and that it's a railcar, and it's not really that hard to figure out what happened here. And, yes, some players might miss the fact that there is no blood on the ground, so it probably happened elsewhere, but people that care and pay attention will be more rewarded."

It's a setup The Astronauts hopes will allow players to more easily inhabit the skin of Paul Prospero, letting them play detective rather than simply controlling one. It's still rough in form, and will be refined over the coming months, but Chmielarz is confident that the studio has struck the right balance between what he describes as "intrusive narration", which disrupts immersion, and leaving players to their own devices.

"Originally, we did it the old-school way," Chmielarz explains. "You approached an item, clicked Examine and the hero commented. But the comment cannot be directly about what is on the screen. As a player, you see some severed legs, and if the hero says, 'It's severed legs,' then even with some extra words for flavour, that's just redundant. If the comment reveals more info, a connection that the player might have missed – for example, 'Severed legs… I should go back to the railcar and take blood samples' – then that's leading the player and turning them into a FedEx puppet. Not to mention that at this point the hero and the player are supposed to have exactly the same knowledge of the world. If the hero knows more, that's breaking the fourth wall and exposing the designer/director. And if the comment is just for extra flavour, then this is a dialogue between the player and the character. But the hero and you, the player, are supposed to be one and the same entity! There shouldn't be any dialogue between the two of you."

Prospero won't be silent like Gordon Freeman, but his voice will be restricted to ambient narration. "Like the narrator in

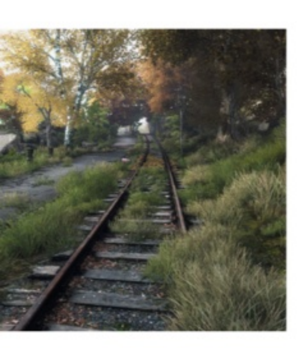

Adrian Chmielarz, game director


Despite the bloodshed, Red Creek Valley is one of the most pleasant videogame environments we've visited, channelling a little of *Alan Wake* and *The Witness* in its beautiful, forested acres



Clues range from the blatant, such as abandoned personal effects, to more subtle hints like a disturbed rock. Finding them is another matter, however, as they can be far from your main path





The patch of dead grass suggests that the rail car spent some time here before it was moved. An upended fuel can rests just next to it, too. You're free to ignore all of this and explore the world, however

Bastion," Chmielarz explains, "if the narrator himself was the hero and talked only during idle or super-crucial moments." The point is that the narration will never intrude on your ability to draw your own conclusions. Chmielarz hopes that some players will go even further and attempt to analyse clues and objects themselves, only clicking Inspect to see if they missed something.

Right next to the blood on the railcar is a slot for a crank handle, but the tool we need is missing. This provides an opportunity to try out another of Prospero's powers of deduction, although this one is less grounded in reality. Once the slot is inspected, multiple instances of the word 'Crank' float about near the centre of the screen, getting farther apart or closer together depending on which way Prospero turns. Once they overlap, the word glows yellow and you know you're facing in the right direction. You can then hold the

The point is that narration will never intrude on your ability to draw your own conclusions

Vision button to see the object in question. It could be nearby or farther away, but clues can be gleaned from these brief glimpses. The crank is next to water during this particular vision, for example, so now we know the general direction to travel in, and to head down to the edge of the lake below the bridge.

This ability is a manifestation of Prospero's supernatural intuition, which enables him to tune into the memories of the dead. A distance down the railway line, two severed legs lie on the sleepers, and following the trail of blood along a path leads to the corresponding mutilated body of a teenage boy. An option to sync with the boy's memories appears when we look at the body, but something isn't right and it can't be activated. Prospero's power, it turns out, relies on all the pieces of the puzzle to be where they were before an incident took place, and solving this problem constitutes much of *The Vanishing Of Ethan Carter*'s gameplay.

There are other clues nearby: a length of rope that's partially tied to the railway line, a bloodied rock, a canister of fuel and a patch of dry vegetation found a short way away. In the current build, inspecting the dead grass triggers a ghostly blue vision of the railcar in its original position, but The Astronauts is still deciding whether or not to keep this transparent hint system in place.

A subtler system that will definitely stay is the automatic tagging of objects and clues that you find, a word or two hovering just above each new object. It's an effective visual metaphor for Prospero's increasing understanding of a crime scene, and sidesteps the break in immersion that checking a list in a notebook would surely bring about.

Once you think you've found all the relevant evidence and returned everything you can to where it was (we replace the bloodied rock in a pile of stones and reverse the railcar back to the dead grass after a short search for the crank at the lake's edge), it's possible to sync with the strongest memories of the corpse. Blue wisps float out from the body towards crime scene 'hotspots', and more blue visions appear, each one playing out a few seconds of the events that transpired before the person's death.

Watching each one adds them to your own memories, which can be accessed at any time. Do so and they float in front of you without pausing the game, alongside the option to visualise the crime. But now your task is to establish the order in which they happened – a vision in which the boy is crawling away from his severed limbs can't precede one in which he is walking, for instance. Get it right and you'll see the crime play out in full, before all those wisps float back to the corpse, creating its first memory as a ghost. This in turn floats to a new location, and by following it you'll see one final vision, which will provide a hint as to where to go next.

The severed-legs crime is the first you'll encounter, taking place five minutes into the game, but it's nonetheless an elaborate, tiered puzzle. The Astronauts is remaining tight-lipped on how many mysteries the final game will contain, or how much of the large, fully explorable world later conundrums will cover. But we're already itching to delve deeper into Ethan Carter's macabre tale. ■





Photographic evidence

The Vanishing Of Ethan Carter is set in Wisconsin, in the fictional Red Creek Valley. Autumnal trees, each one moving in a gentle breeze, line an expansive lake spanned by an old wooden bridge. In the far distance, a dam can be made out, and just beyond that lies a mountain range. It's all open to exploration, and looks remarkably naturalistic due to The Astronauts' use of photogrammetry, a technique that generates highly detailed in-game assets from multiple photographs of real-world objects. In the case of both textures and geometry, the eye struggles to spot any repetition, while textures are extremely crisp up close.



TOP **A blue tinge to the screen and a deathly whisper (dubbed by The Astronauts as the "cry of the dead") heralds a nearby corpse. Such moments are in sharp contrast to the welcoming tone elsewhere in the game.** RIGHT **This memory reveals that the victim who lost his legs had previously tied Ethan to the railway. Whether he intended to harm the victim or was simply a creative bully is unclear at this stage**

TOP **Having pieced together the crime scene and synced with the corpse's memories, it seems clear that Ethan's grandfather has come to his aid. Ethan is clearly afraid of the man, however.** ABOVE **While the lake looks tempting, you won't be able to swim in it. "It would offer greater freedom," Chmielarz says, "but at a cost of breaking immersion due to the silliness of it all."** CENTRE **The Astronauts' 3D interface abandons crosshairs and any kind of HUD in favour of floating verbs and nouns, highlighted simply by focusing on them. It's an elegant system**



WOLFENSTEIN: THE NEW ORDER

History is inverted as MachineGames reinvents the Axis and the cover shooter

Publisher	Bethesda
Developer	MachineGames
Format	360, PC, PS3, PS4, Xbox One
Origin	Sweden
Release	2014

As we begin our time with the opening three chapters of *Wolfenstein: The New Order*, the last game we'd ever expect to compare it to is *The Last Of Us*. And almost from the start we're dual-wielding machine guns and fending off Nazi-branded robotic quadrupeds – no surprises there. Yet while the tone throughout is more Inglourious Basterds than The Pianist, in terms of character development, believable humanity and sheer pathos, MachineGames appears to be squaring up to Naughty Dog.

This is even more surprising given that protagonist BJ Blazkowicz, a man whose neck is wider than his already sizeable jaw, has previously acted as little more than a graphene-thin cipher in a series increasingly synonymous with unremarkable and outdated design. But when, during a meal with a Polish couple whose granddaughter he has just rescued, Blazkowicz discovers that it's 1960 – 14 years after the botched operation that landed him in an asylum with a head injury – and that the Nazis won the war, he is shocked, confused and vulnerable. He's suddenly more than an attitude and gun-holding hands.

The first character we encounter during a breathless opening section is even better still: Fergus, one of gaming's best-realised Scotsman. A seasoned pilot and soldier who paternally chides those under his command with phrases such as "great flapping numpty", he's instantly likeable as he teaches us the ropes while trying to keep a clunking bomber from falling into the ocean.

Our first task is to retrieve pliers and some wire from a storage locker in the plane's hold in order to improvise a tourniquet to prevent a damaged fuel line from exploding. Having accessed the crawl space that contains the machinery, we negotiate a growing inferno and seal the leak just as one final burst of flame sets our arm briefly on fire. After this, supplies and vehicles need to be cut loose from a blustery cargo bay in an attempt to stop the ailing plane's altitude loss. Then, from a gun turret in the nose, we attempt to fend off a wave of experimental jet-powered Nazi aircraft, before abandoning the plane by leaping onto the wing of an adjacent aircraft. As tutorials go, it's a memorable one.

The New Order uses the latest version of id Tech 5, the engine that powered *Rage* but is also behind Tango Gameworks' *The Evil Within* and id Software's own soon-due *Doom* (AKA *Doom 4*). It's a good-looking game, even if there isn't a MegaTexture in sight and close inspection of the surfaces in our PS4 build reveals some disappointingly low-resolution work. The overall effect is far from unpleasant, but having been spoilt by

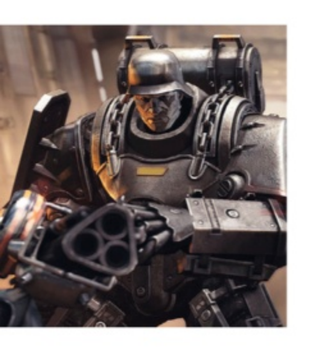
These machines act as the first line of defence during a beach landing sequence. Although fearsome, the canine characteristics they've inherited makes them vulnerable to a game of 'grenade fetch'





Although MachineGames is keeping details of the broader plot to itself for now, this artwork suggests that players may be visiting a Nazi-built moon base on their quest for revenge





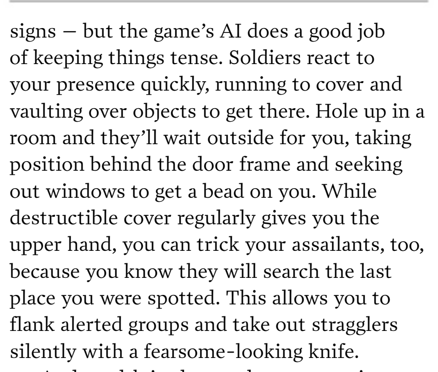
We encountered two variants of augmented soldier during our session, both minibosses. This type is vulnerable to headshots, of course, but another version requires you get behind it after a temporarily blinding shot to the eye

Battlefield 4 and *Killzone: Shadow Fall*'s pin-sharp worlds, it's hard not to be dissatisfied. Worse still is the draw distance, which renders scenery beyond the playable space an indistinct blur that looks like it's been ripped out of *Quake II*. We can only hope this is remedied by ongoing optimisation efforts.

But none of that takes away from the satisfying gunplay. Weapons feel hefty and deadly, and basic enemies are felled quickly with just a couple of bullets, even on the harder difficulties. Hit a soldier in the leg and he'll collapse to the ground straight away, backing towards the nearest surface and firing with one hand while clutching his injured leg with the other. Enemies react to every bullet, buckling and contorting with each impact.

The New Order's enemies aren't the brightest we've ever encountered – they'll still occasionally position themselves next to something explosive and covered in warning

Even familiar components feel fresh when recontextualised by progressive mechanics



signs – but the game's AI does a good job of keeping things tense. Soldiers react to your presence quickly, running to cover and vaulting over objects to get there. Hole up in a room and they'll wait outside for you, taking position behind the door frame and seeking out windows to get a bead on you. While destructible cover regularly gives you the upper hand, you can trick your assailants, too, because you know they will search the last place you were spotted. This allows you to flank alerted groups and take out stragglers silently with a fearsome-looking knife.

And stealth is almost always an option thanks to the game's intricate spaces. Despite the focus on singleplayer, these combat bubbles often feel like they've been designed for multiplayer. Generous amounts of cover and multiple paths through most rooms make it possible to get behind the enemy's front line before they even know you're there. Doing so is even tacitly encouraged with the introduction of a new type of enemy called the Commander. If alerted to your presence, they'll retreat to a safe point on the map and call for reinforcements. Backup, in the form of armoured troops, will continue to arrive until you kill all the Commanders in an area. Take them out before they can broadcast, though, and you'll face significantly less resistance.

But when bullets start to fill the air, you have more options than normal too. Hold the lean button (L1 on PS4) next to a wall, pillar or anything else that you think might stop incoming fire and, rather than snap to cover, you'll be able to lean around, over or underneath it with the left stick. You can still back away from a surface at any time and you can use this dynamic lean almost anywhere, making for a truly organic cover system. So if you spot a guard's feet under a door or through a food hatch, you can lean down and cripple him with a bullet to the foot, or simply barge through and finish the job.

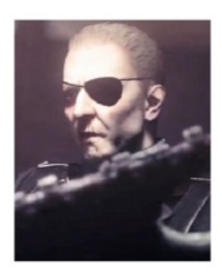
***Wolfenstein*'s world is** built from the series' signature mix of medieval architecture, twisted experiments and anachronistic technology, but a level set in the brightly lit asylum that cares for Blazkowicz offers a change of pace from all the greys, blacks and reds. The game revels in referencing its own history, too, and sharp-eyed players will find a secret passage behind a gold-framed, floor-to-ceiling portrait of a Nazi general during a mission that sees you infiltrate a castle. But even familiar components feel fresh when recontextualised by *The New Order*'s engaging plot and progressive mechanics.

It doesn't always hit the mark, though. Those aforementioned robot dogs, for instance, aren't nearly as enjoyable to fight as human foes, and the introduction of small, hard-to-hit flying drones induces a heavy sigh. Plus, while the story does an excellent job of riling you up to kill Nazis, doing so in a game that sometimes resembles *Bulletstorm* can leave you feeling self-conscious.

Still, MachineGames' storytelling aspirations are unquestionably admirable. If the studio can maintain *The New Order*'s early plot momentum and continue to introduce new ideas at the almost overwhelming pace of its opening sections, it might have achieved something great: returning *Wolfenstein* to its high-speed, high-concept roots. ■

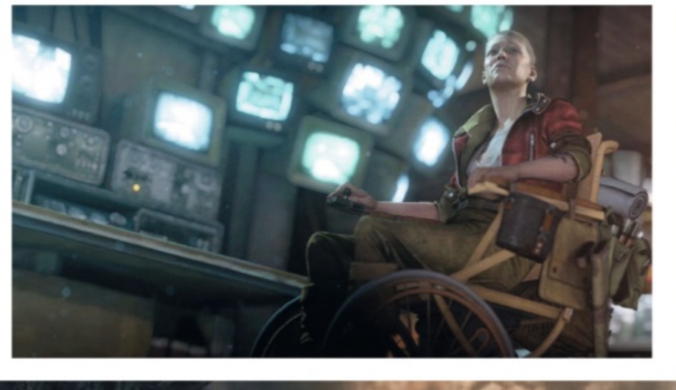


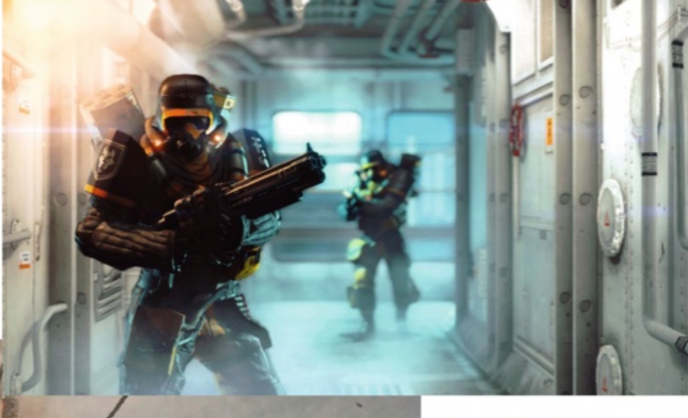
While normal enemies are dropped with only a bullet or two, increasingly elaborate armour designs quickly complicate matters



Tortured Souls

Following a popular trend, *The New Order* features a torture scene in which you're cast as interrogator. MachineGames handles things in its own way, however, setting up a grimly comic encounter that feels emotionally powerful without being explicit. Having escaped from a raid on the asylum that looked after you, and rescued your carer, Anya, you arrive at her grandparents' with a stolen car and your Nazi hostage. Anya's grandmother puts on a record as you head to the basement, where your victim is tied to a chair next to table with a chainsaw on it. The game only asks you to prepare for the interrogation ("Need splatter protection") and builds a great deal of tension by trading violence for implied threat.

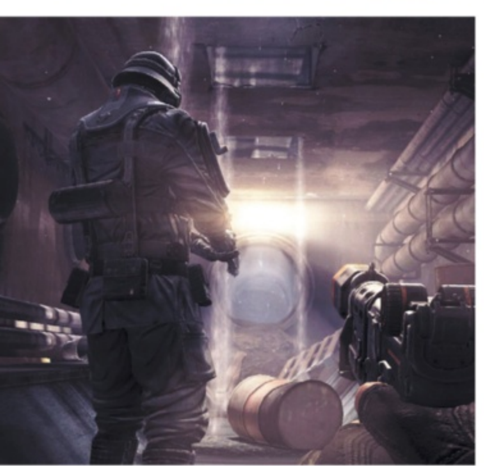


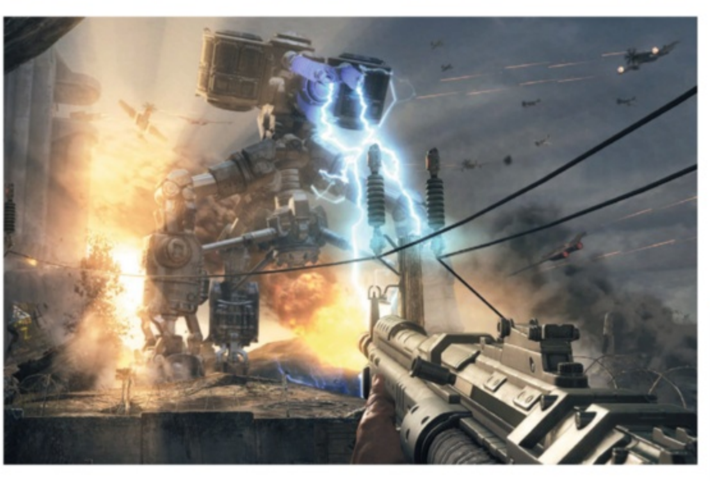






TOP LEFT **Some characters from 2009's *Wolfenstein* make a return, including Caroline Becker, a major part of the resistance who was gunned down in that game. She survived, but clearly not without injury.** TOP RIGHT **Hokey paranormal components are being dropped in favour of a focus on a retro-futuristic aesthetic that occasionally resembles a *Killzone* game (sartorially, if not in terms of texture resolution).** LEFT **Dual-wielding weapons changes the scope button to secondary fire. It's certainly *Wolfenstein* canon, but in practice is less satisfying than the more precise, and punchy, single-gun setup**

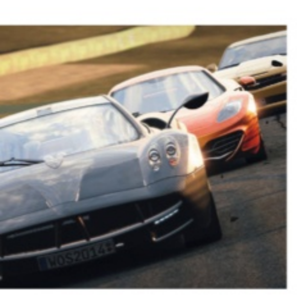




FAR LEFT **Sneak up behind a guard to dispatch him with your knife. Guards will always search the last place they saw you, so it's possible to use the labyrinthine level spaces to your advantage.** LEFT **This robot stalks the beach trenches during the opener, firing electricity bolts as it goes. While you don't fight it directly, then, we suspect it's a harbinger of encounters to come**

HYPE

Publisher My.com
Developer Slightly Mad Studios
Format PC
Origin UK
Release 2014



WORLD OF SPEED

Slightly Mad Studios' MMO racer pulls out of the pit box

Creative director Andy Tudor promises that in-game payments will only ever be about saving time and aesthetics. "If I really want those gold rims on my car, I'm stupid, but I'll happily throw money at any game!"

Most studios toiling away on an ambitious, high-profile racer might think twice about starting another. Not UK racing specialist Slightly Mad, which has spent the past year working on an MMO racer called *World Of Speed* alongside its partially crowdfunded *Project Cars*.

"Developmentally, they're two completely separate games," lead producer **Pete Morrish** tells us. "The things that are shared are mainly on the human level, things like the experience and know-how and just the way that we approach stuff. It's two completely separate teams, although leads are shared across both projects, because we've been around long enough to be able to split our time equally effectively across two things."

The two games share an engine, too. Slightly Mad's scalable Madness tech powered *Shift 2 Unleashed*, and its modular nature has allowed the studio to bolt on MMOG aspects while discarding some of the more sim-oriented physics needed for *Project Cars*. It all makes sense from a development point of view, but investors waiting to see a return on *Project Cars* might be concerned about where their money is going.

"We're ahead of where we expected to be on *pCARS*," studio head **Ian Bell** assured backers on the forums at World Of Mass Development, its crowd-development platform. "Let me put it clearly: *pCARS* would not be where it is now without *WOS*."

In other posts, Bell reveals that the additional funding *World Of Speed* has attracted has allowed the studio to grow its headcount to 110, and that *Project Cars* will benefit from "a lot of vehicles and licences it would otherwise not have gotten". The studio is keen to stress, at least in the relative





ABOVE **"Why can't you have an arcade game that has beautiful *Forza*-style pristine cars?" asks Tudor. "We may have thrown it through the prism to make it a bit more Hollywood, but we want arcadey handling with amazing-looking cars."**
LEFT **Grip isn't hard to come by in *World Of Speed*, but cars have a satisfying weight to them. In motion, things are more hectic than the serenity of this screenshot suggests as cars clash and send trackside furniture flying about the place**





World Of Speed's garage of cars includes the usual suspects, but the range of roles available – blocking, drifting, even stunt work – should encourage drivers to construct a fleet of more than simply their favourites





From top: Andy Tudor, creative director; Pete Morrish, lead producer

privacy of a closed forum, that *Project Cars* will not suffer from the simultaneous development of *World Of Speed*.

And it shouldn't pose direct competition, either. "There's a niche for a *Burnout*-style, arcadey, earning points, twatting-into-other-cars kind of experience [on PC]," creative director **Andy Tudor** says. "Console gamers have had that forever. They've had *Split Second*, they've had *Blur*, all that kind of stuff." That's not to say *World Of Speed* won't find its way to consoles eventually, but for now it's a PC game with the immediacy of console production values.

It's certainly bold. *World Of Speed*'s focus is on team play, with Slightly Mad aiming to ditch the focus on podium places and ensure every player's contribution is meaningful. Of course, you'll earn XP for coming first, but you'll grab some for a last-place finish. And there are other objectives: trading paint with every car in a race, or drifting around every corner.

"Other games say they have team-based racing. They don't. There may be objectives, but everyone's out for themselves," Tudor explains. "For our *Need For Speed: Shift* team racing DLC, we didn't provide the right toolset or communicate to players that it's not all about you. It's about you working alongside everyone else.

"The online competitive arena is quite scary. If I go into a race and there's a guy who shoots off into first place, I just think , 'Why am bothering?' You give up, and that happens in every genre. When you take away that pressure of vying for first place, and you say, 'You're part of a team now', [then] one of your guys can be amazing and you provide support for them in a certain role – either by doing something completely different to him, like drifting around all the corners, or by blocking people from potentially trying to overtake him – [and] it feels awesome."

Slightly Mad hopes to further foster this team spirit with clubhouses – 3D spaces in which to socialise with other drivers. Each track has one and ownership will go to the victors of regularly staged Territory Wars events. Once owned, your team's logo will be plastered over the track and you'll have access to club-exclusive events and benefit from, among other things, XP bonuses. Slightly Mad is still working out the details, but promises to reveal more specifics this year.

> *"There's a niche for a Burnout-style, twatting-into-other-cars kind of experience on PC"*

Tracks include *Project Gotham*-style urban runs as well as real-world racing circuits. At this stage, the handling model is weighty, but forgiving, at least with a driving wheel; over-enthusiastic steering centring made it hard to judge how the game feels with a pad. Even so, the hectic, camaraderie-infused racing proves enjoyable, and with bragging rights at stake, events are likely to be fiercely contested.

They should be well subscribed, too, since *World Of Speed* will be free – just don't call it free-to-play. "It's not free-to-play, it's *free*," says an agitated Tudor. "It's very obvious when you start putting walls into your game that require people to pay money to get over. I don't know why games do it; we're certainly not going to do that, ever. It's also annoying when another player gets an advantage because they've put money into the game. We will never have a super-nitrous pack that will allow somebody to accelerate away from you. We expect you to get to the upper echelons of the game, with the best kit and best cars, and not have spent a single penny." ■



Chocks away

World Of Speed features an airfield that's one part playground, one part testing ground. Drivers will be able to turn up with their cars, socialise, and make use of the various obstacles to do stunts – making it sound like a multiplayer take on *Dirt*'s Gymkhana mode. While Slightly Mad has only shown standard racing modes so far, it has many more planned, including stunt modes and drifting. Territory Wars events are also likely to include specialist disciplines, so ensuring you have a team that's fit for any challenge will be essential if you want to earn a clubhouse. To that end, the airfield will allow you to audition potential new members as your club grows.



The team spent weeks living in the cities featured in the game, which so far include London and Moscow. Slightly Mad will continue adding cites to ensure the game has a truly international appeal



Publisher Ubisoft
Developer RedLynx
Format 360, PC, PS4, Xbox One
Origin Finland
Release 2014



TRIALS FUSION

How RedLynx is welding together the most ambitious Trials yet

The problem with making something pure is that changing it makes people nervous. That's something of which RedLynx became intensely aware after announcing at E3 2013 that one of the additions to *Trials Fusion* would be a trick system. The uproar was immediate: this exacting game of balance, control and exquisite physics was doomed to become a showy, score-chasing motocross romp. But as creative director **Antti Ilvessuo** explains, that was never going to be the case.

"People were worried that we were ruining *Trials*," he tells us. "But we're the developer; we know how to make this game. People should rest assured that we know what *Trials* is. We're not breaking anything."

On the evidence of this first look at *Fusion*, he's right. *Trials* is, first and foremost, a remarkable physics model from which game design spills out, and the freestyle motocross (FMX) system is grounded in real-world physics. As before, you use the left stick to shift your balance and, with it, the position of the bike. Now you can use the other stick to move a rider's legs. Keep the bike level, push your legs out behind it and you're Superman.







"Tricks in other games are about button combinations," Ilvessuo says. "I haven't seen this done in any other game, and I think this is the right way to do it. Everything's done by physics, not by animation [cycles]. It's all unlocked, and it's only your own skill that defines what you do." For the most part, FMX is hived off from the core game in bespoke events and skill games, but you can do tricks at any time, though the need for higher jumps will adversely impact racing times.

Elsewhere, we find more new uses for old physics. The addition of all-terrain vehicles whiffs of gimmickry at first, but poses a stern challenge to honed *Trials* muscle memory. While traditional *Trials* bikes are, naturally, rear-wheel drive, the 4x4 nature of these ATVs means you lose speed if you land jumps on your back wheels. It's a subtle yet fundamental change to the way you play.



As is a new focus on replayability that fleshes out each of the career mode's 40 races with a set of three challenges. Some are skill based, perhaps asking you to complete a number of flips. Others involve finding secrets squirrelled about levels. Others still trigger minigames that mimic the leftfield player creations made in *Trials Evolution*'s level editor (in *Fusion*, that editor is refined and expanded, containing over 5,000 objects). We have a game of tennis against a grumpy penguin, for instance. But it's not all played for laughs: finishing some challenges shuffles the level furniture to pose a sterner test.

The singleplayer career follows the standard *Trials* template, and late-game levels put its simple mechanics to taxing use, with the latest iteration of RedLynx's Inferno track proving every bit as tough as you'd hope. There's further challenge in Infinite mode, which spits out short, procedurally generated lengths of neon track, the player given three lives to survive as many sections as possible.

Much attention is being paid to how this sprawling package is presented, too. The game is, like *Evolution*, split into three strands – singleplayer, multiplayer, and UGC in Track Central – but a new XP system powers a levelling path for each of them, with the sum giving your overall rank. A notification centre tells you if a friend has set a new course record or created a new track, as well as tracking any of the new time-limited tournaments in which you're involved.

RedLynx has been busy, then – and its workload has only been added to by this being the first *Trials* game to be multiplatform on day one. It has led to the studio thinking outwards, devising new ways to use its physics model. RedLynx is enthralled by its player community, which created some 700,000 tracks in *Evolution*, but it isn't in its thrall. To be so would mean no FMX tricks, no ATVs, or any of the other little additions that make this the most ambitious *Trials* yet. ■



Brave new world

Forthcoming iOS release *Trials Frontier* shares *Fusion*'s futuristic world, though it is set further into the future after some kind of apocalypse. One menu option, Step Into The Light, links the two worlds together, though it's one of the few things Ilvessuo isn't yet eager to show off. At the moment, the only tangible product of that link is a slender selection of rider gear awarded for getting a gold medal in the same event in both games. "There's new stuff coming, but this is the first step," Ilvessuo says. "Some games have a companion app or something, but we think we've done it in a way that's part of the game world itself. It's in the game, and I think that's the right way to do it."





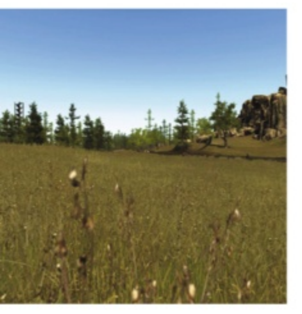
TOP *Evolution*'s simultaneous multiplayer mode returns, though *Fusion* also builds on *HD*'s asynchronous ghost racing with a set of new time-limited tournaments. ABOVE Environmental Easter eggs take skill to discover. Even Ilvessuo struggles to grab a crane after bailing out at the peak of a jump, while accessing a penguin's lair involves inching off a ledge on your back wheel. MAIN The uproar over the trick system was misguided. RedLynx clearly loves its community of creators, though, and has even hired some of them to work on *Fusion*'s track design

TOP Ilvessuo won't be drawn on the resolution question, but *Trials* has never looked as good as it does on Xbox One. The game will, in the *Trials* tradition, run at a rock-solid 60fps on all platforms. RIGHT There's plenty of variety in *Fusion*, from sci-fi cities and factories to burnt-orange sunsets and frozen lakes. Each of the eight environments is its own cohesive space that's four kilometres square





Publisher/developer Facepunch Studios
Format PC
Origin UK
Release Out now (Steam Early Access)



RUST

Surviving human nature in Facepunch's endurance test

Rust is strange as only unfinished games can be. A naked figure on the horizon might suddenly appear headless, or distort in bizarre contortions. A bear might disappear through a wall, never to be seen again. Kill a deer and you'll harvest chicken breasts from its corpse. Server wipes have frequently obliterated everything that *Rust*'s players have built, lending everything a sense of impermanence – particularly your own existence, which is usually short-lived.

A survival game with a Lord Of The Flies twist, *Rust* takes place on a large island decorated not with palm fronds and azure waters but with sparse trees, rocky hills and player-created wooden structures. It's rich with wildlife, though, with pigs and deer that can be stalked through the tall grass. Crude zombies used to roam these lands, too, looking for the light of a campfire at night. But *Rust* has no need for artificial threats – even the replacement red bears and wolves are plugging a gap – since the players provide enough danger themselves.

You might imagine that a first day in *Rust* consists of gathering, building a shelter, a spot of hunting and a night huddled by the campfire in your makeshift home, but usually things are different. You might be imprisoned inside the corrugated iron fort of a sadist posing as a Samaritan, or marched naked at gunpoint to the towering wooden palace of bandit kings. Alternatively, none of this might happen, and you might get stuck in a frustrating cycle of spawning and dying at the hands of better-equipped survivalists. It all depends on the server, and who you play with.

Death is such an inconsequential thing in *Rust*, just a natural by-product of life on the island. It's only when you start to build up collections of clothing and weapons – either scavenged from the backpacks of rivals or cobbled together from the resources of wood, stone, metal, animal cloth and fat – that you start to feel like death is anything more than a momentary but inevitable inconvenience.

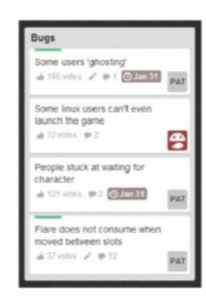
Crafting is very basic, and will doubtless benefit from more items and a more appealing interface when *Rust* is closer to completion, but it takes a lot of time and perseverance to assemble advanced kit. Finding it on a corpse feels like winning the survival lottery.

Every time you die, you respawn with nothing but a rock and a torch. There are persistent elements: whatever you've built, stored in crates, or learned from the blueprints hidden in irradiated structures dotted about the island will remain. Someone can always come along and steal your stuff, however, which makes base fortification one of *Rust* players' chief obsessions.

Most servers are anarchic free-for-alls where loose groups compete violently

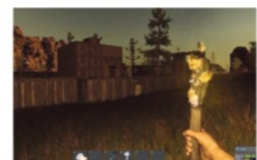
You don't have much of a chance on your own, and while most *Rust* servers are anarchic free-for-alls where loose groups compete violently over meagre resources, others are home to fascinating social structures. Take the 50-person team working together to build a tower so tall that the game breaks, or the two large settlements carrying out protracted campaigns of guerrilla warfare.

There's much to see as a tourist in *Rust*, but the people who are getting the most out of the game at the moment are those who are leading clans, founding settlements, and carving their own niche out of its rocky landscape. They have conquered *Rust*'s strange imperfections or turned them to their advantage and become self-made masters of this wilderness. Like *DayZ*, *Rust* can be proof of the tendency to anarchy in player-defined social spaces, but also of human ingenuity and communal spirit. This survivalist fantasy is the perfect environment for the adaptability and cunning that got us to the top of the food chain in the first place. ■



Open forum

By the time we went to press, *Rust*'s alpha – released in December – had already made close to what Facepunch Studios' *Garry's Mod* had since 2004. But even with over a million copies sold, it is still far from finished. Facepunch maintains an open Trello noticeboard documenting its development that holds lists of bugs, features and performance issues (the most intriguing as we write are "implement new sky" and "wildlife needs hitboxes"). It shows how player-centric *Rust*'s development has been – many of its threads start with emails sent in by players, requesting features or offering advice – and offers a rare insight into the slow transition from alpha to final build.





TOP **Buildings right now are all made of either wooden planks or corrugated iron, and can tower stories high. It's easy to imagine how more complex crafting could change the look of the game.** ABOVE **Home is where your sleeping bag is; the only way to control where you revive after death is to craft one and place it in your makeshift base. Otherwise, you will spawn out in the wilderness, with little hope of ever making it back**

TOP ***Rust*****'s island is beautiful in an understated way – the light diffuses gorgeously across the sparse landscape, and you learn to live by the position of the sun.** ABOVE **Encounters with other players rarely go well for newbies, since you spawn without so much as a shirt on your back for protection. (Indeed, one of the most popular mods removes the modesty-trousers to reveal avatars' full naked glory.)** RIGHT **The zombies looked and felt out of place in this otherwise naturalistic wilderness, an imposed threat where none was really needed – so it's just as well that they've been patched out, even if they have been replaced with bears**







Publisher Bethesda
Developer In-house (Zenimax Online)
Format PC, PS4, Xbox One
Origin US
Release April 4 (PC), June (PS4, Xbox One)



Conversations mimic past games in the series, but are frequently linear. Players will occasionally be given the option to ask further questions, but it's rare that characters are deep enough for you to want to do so

THE ELDER SCROLLS ONLINE

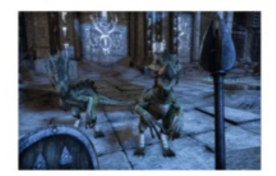
You know it makes us want to shout

The Elder Scrolls Online isn't *Skyrim*. It looks older, sounds older, and plays like it's older than 2011's award-winning RPG. It's a different game from a different team, a team that would probably prefer its game to be judged as a separate entity. Zenimax Online's Matt Firor has said on multiple occasions that *TESO* is its own game, with its own aims and ambitions. That's fair enough from the perspective of the MMOG veteran for whom the famous licence is of passing interest. But it would be wrong to think that comparisons with *Skyrim* won't be rife or won't matter, and this is no *Skyrim*.

The interface is minimal by MMOG standards and clear effort has been made to mimic the look and feel of *TESO*'s singleplayer cousin. But this surface similarity only helps to emphasise the ways in which the games differ. In *Skyrim*, quest markers – if you choose to use them – often point to distant targets, to caves and temples half a world away. Following the arrow is an invitation to travel, not to do what you're told. In *TESO*, the same markers are used to lead you from doorway to doorway, NPC to NPC, and 'secret' to 'secret'. Even after a dozen hours, quests rarely take you far from the person who tasked you to complete them. Like many MMOGs, the world is compressed to the extent that lost relatives, invading armies and elusive monsters are all little more than five minutes from the villager they concern. Layering *Skyrim*'s visual shorthand on top of this dated substructure doesn't do the game any favours.

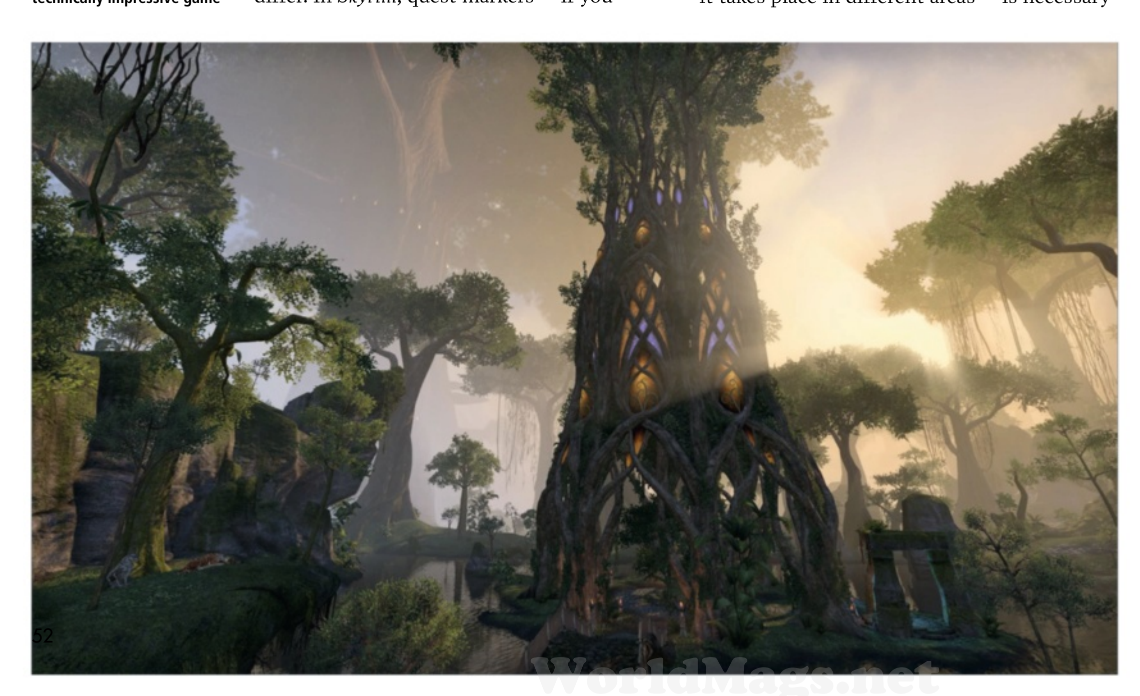
Most troublingly, completing the main questline – which is broadly the same for each of the game's three factions, although it takes place in different areas – is necessary

Areas not visited in previous *Elder Scrolls* games evade the comparisons that are unflattering elsewhere. For an MMOG, this can be a technically impressive game





ABOVE **Firstperson mode is well implemented and helps to give the game a sense of identity, but can be fiddly when trying to fight multiple opponents. Combat requires a degree of mobility that favours thirdperson view**







LEFT **The Fighters' Guild focuses on battling Daedra. Public quests revolving around so-called 'Dark Anchors' mimic the form and function of Oblivion Gates**



TOP **Limited draw distance and verticality prevents the game from matching *Skyrim*'s sense of scale. Key locations tend to be fairly close together, too, giving the world a truncated feel.** ABOVE **Group encounters are rare at early levels, with the first instances showing up after hours of play. In general, this is the area of the game that will feel most familiar to MMOG players**

Icons on the map are used to draw you over to various viewpoints, and these show off the game at its best. There's no disguising the linearity of zones, however



to unlock new zones along the critical path. It is disheartening to be dropped into mainland Tamriel only to find your progress to the next area insurmountably blocked due to a locked gate. If you create a Nord character and want to visit *TESO*'s take on Skyrim, you'll need to complete your quests in the order they're given. There's little leeway for wandering off the beaten track.

The disappointing linearity particularly stings because, unlike a number of the game's other problems, it's not a result of trying to marry two divergent schools of game design. Freedom of exploration is a common quality of both *The Elder Scrolls* and MMOGs. It's one of the rare areas where they agree, so its absence here is a comprehensive letdown.

Combat is inconsistent, but fares at least a little better. The game is skill-based in the sense that you have to target melee attacks as well as ranged attacks and spells, although it is not freeform enough to allow you to strike one enemy by accident while aiming at another. As in many MMOGs, players are free to clip through both enemies and each other as they fight, reducing combat's sense of weight. And further exacerbating this problem is a lack of feedback, which affects melee characters in particular.

Magic users feel better, and we've found that a hybrid of heavy two-handed weapons and offensive magic is the most satisfying way to play. There is plenty of depth to be discovered, too: players are free to mix and match skills and equipment from any of *TESO*'s disciplines, and uncovering unexpected combinations of powers is rewarding. The sorcerer, for example, can attack enemies with a lightning blast that strikes again if the enemy passes below a certain health threshold while the spell is active. Combining this with high-impact melee is an enjoyable – and loud – playstyle, and skill 'mutation' allows that lightning blast to be improved with an area-of-effect explosion later on. This mix of freestyle levelling and theorycraft is an example of an area where the game's component parts come together to work well.

It would be wrong to think Skyrim comparisons won't matter, and this is no Skyrim

Despite some striking lighting, though, *TESO*'s world looks notably less impressive than the previous game in the series. Draw distances are short and characters suffer from stiff animation, especially in conversation. The level of detail in the environments and the inclusion of a full firstperson mode should impress players used to the relatively abstract worlds of *WOW* or *Guild Wars 2*, but it won't do much for somebody who sets their expectations against *Skyrim*.

While charitable players may well find something to like here, there's no escaping the fact that this is a product of compromise. In trying to look like something it isn't, *TESO* invites comparisons it cannot live up to. ■

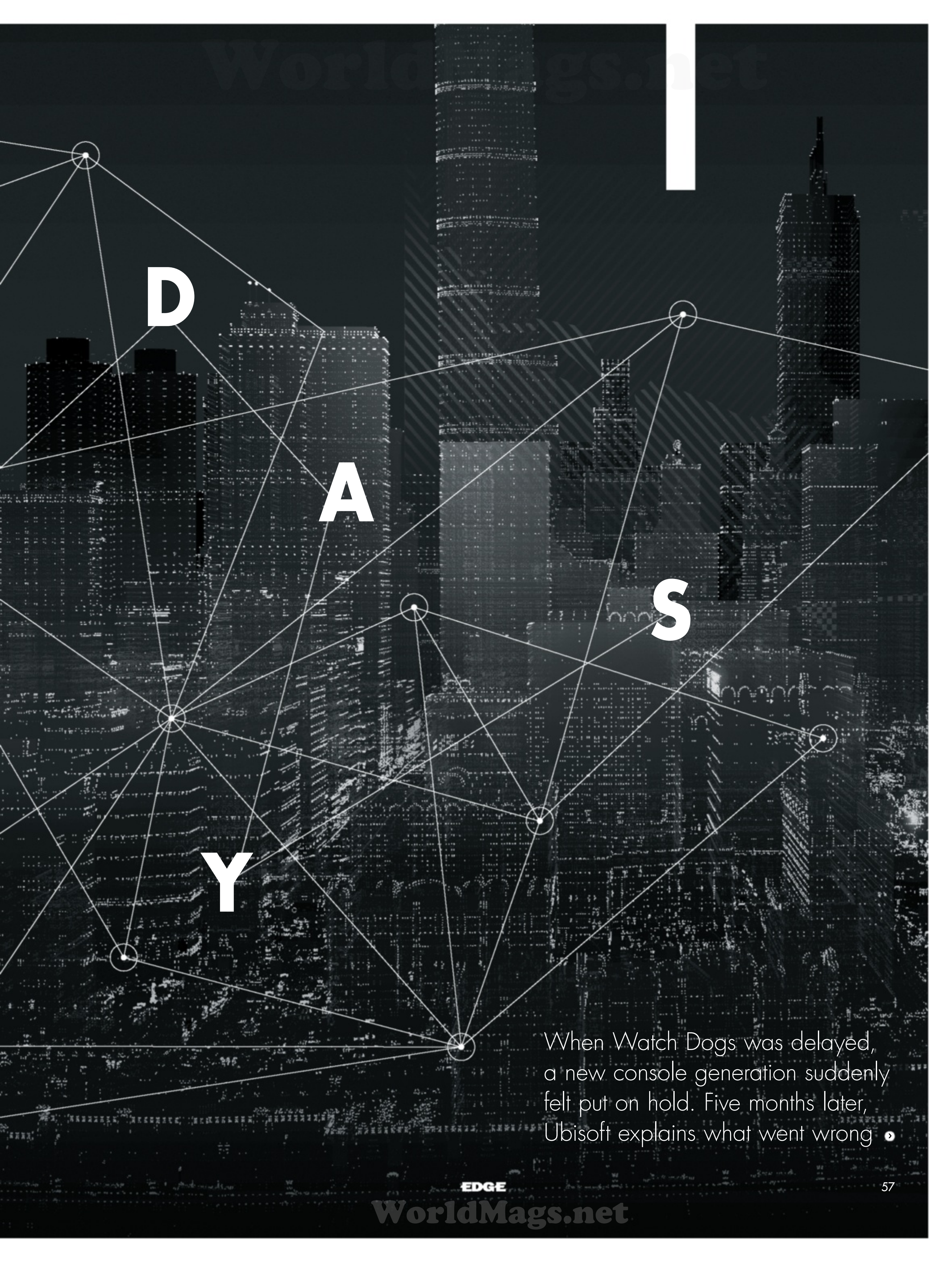


The Way Of The Voice

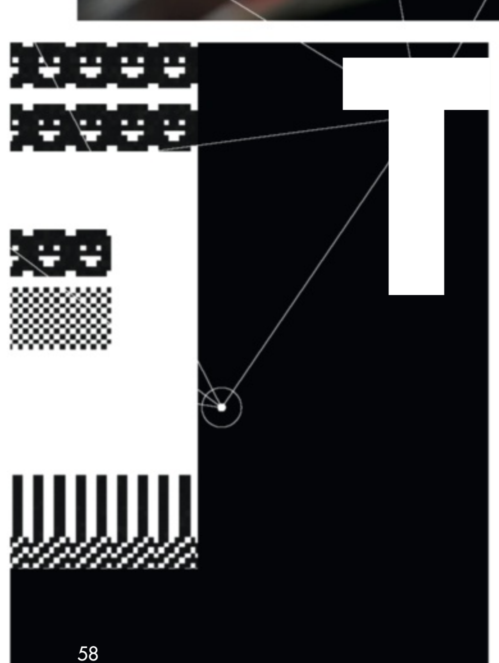
The Elder Scrolls series has always suffered from substandard voice acting. *Oblivion* used just two voice actors per race, resulting in a bizarre homogeneity. *Skyrim* diversified the cast, but struggled to raise the standard. This is one series tradition that, sadly, *The Elder Scrolls Online* inherits wholesale, matching a leaden script with unenthusiastic performances. Bethesda's penchant for investing in Hollywood talent returns, but the results are mixed. Michael Gambon does his best, but a cameo by John Cleese is so stagey, and so clearly written for the actor, that it acts as an early immersion breaker.


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When Watch Dogs was delayed, a new console generation suddenly felt put on hold. Five months later, Ubisoft explains what went wrong



The eighth generation deserves a more dramatic reason for its postponement than the one that *Watch Dogs* creative director **Jonathan Morin** has to offer. "I can't say anything like, 'It was completely broken.' It's not even necessarily that something tangibly wasn't working. It's more that when [we crammed] all the features together, we started reacting to all the issues. And there were too many issues."

When *Watch Dogs* was delayed just a month ahead of its intended November 19 release last year, it was a game deep into its final stretch, with advertisements running in both consumer and trade magazines, and preorders taken. It was arguably the flagship set to launch a generation – a generation, some Internet pundits would argue, that Ubisoft delayed along with the game. But if you want a glamorous or tidy reason for *Watch Dogs*' delay, you'll come up short. It was never a bad game in need of fresh design or a catastrophic mess in need of debugging. It was instead a web of complex systems built to play well together – and they didn't.

"Sometimes when you arrive at the end of development, there's this moment where you say, 'OK, here's this list of things we could polish and this is the time we have,'" Morin explains. "And sometimes you fall into a situation where you have to use your Plan B instead of your Plan A, because you don't have enough time to solve it properly. I think what happened is that at some time we started to use our Plan B too much, and it wasn't really conveying what *Watch Dogs* was expected to be."

Sometimes, he says, there were so many hackable points onscreen that isolating a single one was tricky. At others, NPCs would behave in ways the team didn't understand. Some missions were too hard, and others too easy. Some systems were poorly explained, while others



Ubisoft is working hard to make cars crash like cars should, and uses a number of tricks to ensure a hacked traffic light at a busy intersection leads to chaos. Those tricks will differ depending on console; traffic density is greater on PS4 and Xbox One than on older machines, but the game will always spawn enough traffic to produce a convincing accident



"I THINK WHAT HAPPENED IS THAT AT SOME TIME WE STARTED TO USE OUR PLAN B TOO MUCH"



weren't explained at all. And some simply wouldn't work together at the same time. "Microscopic things," Morin says. "It wasn't a single full feature or anything like that, but it was stuff that affected being able to express yourself how we'd want, making sure the reactions of the AI were working… those sorts of things, so those aspects would never let down the fantasy. There are a lot of emergent situations going on, so even if [a problem] wasn't happening a lot, it was happening."

Ubisoft Montreal's experience with open-world systemic games goes back to the first *Assassin's Creed*, of course, but *Watch Dogs* is on an altogether larger scale. There are systems governing traffic flow, morality, the way witnesses react, the way police pursue, how NPCs treat suspicious events, and how those same characters react to car crashes or a drawn gun. There are systems governing the salary, career and clothing of every civilian in *Watch Dogs*' Chicago, and ones governing the way those people behave when protagonist Aiden Pearce interrupts their daily routines. Still more systems address how Pearce's behaviour is represented in the media after any disruption, and ensure that civilians react appropriately based on your fearsome or friendly reputation. There are systems you can hack. There are systems you can exploit. There are systems governing how the wind blows down specific streets. It is, says Morin, "the most complex emergent city ever". When the systems work, *Watch Dogs* works. The problem came when, with only weeks to go, things that worked so well alone just couldn't get along together.

"The quick solution when two systems don't talk to each other is to just [break the connection] so they'll never have to," Morin says. "But if you go down that road, that's an immediate deception for certain players. They're going to want to push at the edges of the system, because the game screams for them to go there and try that. It was stuff like that; stuff that would be disappointing. It's microscopic details like that I think make the difference between just shipping *Watch Dogs* and shipping it right."

Early last year, Ubisoft delayed *Rayman Legends* to make it a multiformat game, so Michel Ancel's Montpellier team found time to make tangible changes to the game, adding many boss fights and the Kung Foot minigame. *Watch Dogs*, though, has gained nothing worth printing on the back of the box in the months since the deadline crunch was put on hold. "We ended up going back to Chicago to record some more voices," story designer **Kevin Shortt** says with something of a verbal shrug when asked about new features introduced since the delay. "It gave us a chance to add more meat to the world, to write more profiles for the civilians. It'll make the world feel a lot more alive."

"To be honest, we just polished the game," co-art director **Mathieu Leduc** says. "Naturally, with an open-world game, you polish the main path and you kind of… not let go of the side stuff, but overpolish the main path. So this extension allowed us to just go back and polish a little more of the side stuff, the hidden stuff that's not on the main path."

"We didn't really start shoehorning features in one after the other," Morin says. "It's tempting to start saying, 'Oh, let's add this and that, and we so wanted to add this,' but the reality is we'd just end up repeating the same thing over and over again. Our new starting point was an almost-shipped game, so the smart move was to not touch too much. Let's just know exactly what we want to change and deal with it in a very precise way. We already had a huge game. Now the thing was to make sure everything

"UBISOFT HAD THE BALLS TO SAY, 'LET'S GIVE THOSE GUYS MORE TIME SO THEY CAN POLISH EVERYTHING'"

connected with each other in a nice way. We didn't really add anything huge to the game. We just tweaked everything."

And *Watch Dogs* had to work as intended, because for many it represents a new generation. On its debut at E3 2012, it immediately became the talk of the show, beating *Star Wars 1313* by virtue of showing something beyond the usual shoot-cover-repeat mechanics games have been leaning on since 2006. Here was a world that felt 'next gen' not just for its looks, but for its mechanics – the way every character has a name, a story, and a salary that can be stolen from them, no matter how inconsequential they are; the way traffic flow is managed to ensure any car crash a player engineers feels authentic; the sophistication of Pearce's context-sensitive interactions; the shortage of gunplay and murder at an E3 that had been more about explosions, headshots and neck-stabbing than ever before.

Morin laughs about it today, but prior to the show he was asked a question by those who had seen early versions of the stage demo: "Why so much walking?" Pushed to make it more exciting, he allowed just one explosion at the demo's end. His instincts on that proved right, even if he in no way felt ready for the reveal.

"They forced us to go at E3 2012," Morin says. "We didn't know what the hell those new consoles would be, so *Watch Dogs* really has worked on [seventh]-gen systems since the start. But we always pushed the ideas, the design, the core of *Watch Dogs* in such a way that we felt it would fit well with what we thought would be the future of games. Yves [Guillemot, Ubisoft CEO] was the one who wanted us to go at that E3, even though we felt it was a bit early, and in the end I think he was right."

But it wasn't Guillemot alone who put *Watch Dogs* on hold in October 2013. Producer Dominic Guay, Morin, Ubisoft's Parisian editorial team and "the execs" were also involved in a decision that meant vast quantities of marketing money were wasted hyping a missed launch. The team wanted a little more time and expected a month or two at most. "What I thought was quite mind-blowing was that Yves didn't just say, 'Oh, let's give a month to *Watch Dogs* to close their things,'" Morin says. "He had enough faith in the team and project to say, 'Give them more time and we'll see.' That, to me, was unexpected.

"The reason why it happened so late is because it was hard to measure whether or not we would pull it off at the speed we were going. I can't just present to Yves like, 'Hey, let's push this game back!' They have to open the door to that kind of thing, because I'm way too busy trying to do my job and shipping the game. When we announced it to the team, they were… Well, you know, the first day it's not necessarily good news to everybody, because they've done a lot of crunch and now they realise, 'Jesus! Why not a month ago? We did so many hours! It's not like we did that for fun!' But in the end, it paid off a lot for them as well."

Watch Dogs' final stages had presented an insurmountable problem, a problem solvable only by breaking the very systemic promises on which the game had been sold, or by taking more time. "When you're in a closing phase like that, you don't have the time to do certain things the way you would want," Morin says. "Suddenly, we had extra time on a game that you could play easily without crashing all of the time. And that was the new starting point. We could reintegrate or fix certain issues without the cacophony of hundreds or thousands of other bugs being entered every day and breaking something else. Everybody started fixing features, but in a very stable manner. The level of productivity and efficiency in the team was a hundred times greater because of it."

Even in its previous state, *Watch Dogs* would almost certainly have made millions as a launch game for PS4 and Xbox One. "The game was good and it scored pretty well in terms of how we felt, but there was still this disappointment," Morin says. "We had the luxury of having lots of people show interest in the game, and also the luxury of *Black Flag* coming out, and Ubisoft had the balls to say, 'Let's just give those guys more time so they can actually polish everything, so we don't disappoint on any aspect of it.'"

And so when *Watch Dogs* ships later this year, it will ship as the team intended it. Whether the missions, of which Ubisoft has shown little, will match the quality of the world in which

Q & A

Mathieu Leduc
Co-art director



How do you keep a game's art direction contemporary and stylish over a five-year period?
To be honest, when we started, we had some cool ideas we had to let go… But it's funny that like five years ago we started tackling those things and the present is really catching up fast. Back then, we had some really cool ideas about surveillance and stuff like that, but now everything's catching up too fast, so that at the end we have to adjust some elements and some graphical ingredients also.

How did *Watch Dogs*' art directors help inform development on the new Disrupt game engine?
It's a collaboration between us, the other directors, and the programmers. At the beginning, we had this idea of creating a realistic open-world game with a nice level of detail based on a contemporary city, so right off the bat we established what should be the key ingredients we should play with and which sort of engine should we be working on. You know, you can drive at high speed, so you have to build a good streaming system, and so on. [Art-wise], it was mostly based on Chicago's weather, getting the East Coast mood.

Did *Assassin's Creed* inform your work on *Watch Dogs*?
For me, *Assassin's* and *Assassin's II* were a bit different. Those were fantastic fantasy games; they were not based on realistic, contemporary cities, [which are] so much harder, because people already have references in their heads for comparison. We were able to invent some stuff to show people things they probably don't know about, but generally building contemporary Chicago and trying to make it look as realistic as possible comes with a good share of challenges. We can have a good, realistic render, but after that we just play with variables, the atmosphere, tweak the mood. But for me it was really about – and this is where I really think *Watch Dogs* is distinctive – the edgy aesthetic, playing with the ASCII stuff and the UI stuff. We really wanted to make sure we didn't have a sci-fi UI. We wanted to base it on homebrew stuff, like the NFO files… All those little elements can be edgy enough, and when you mix them with stylisation, narrative, characters, environments, art and graffiti – when you put everything in the mix – it becomes something much more. Yes, it's realistic, but it's still a mood, still has flavour.

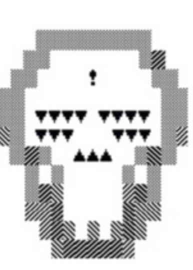
Nonplayer characters will react to Pearce's appearance on the news if he's sighted during or after a broadcast

they're set is another matter, but the Montreal team has constructed enough connected parts interacting in enough different ways to give players the breathing room to make their own fun and tell their own stories in its new sandbox.

So now *Watch Dogs*' systems are working, what happens when you pull and aim a gun in the street? "The first thing that should happen," Morin says, "is people should notice you have a gun. If you walk slowly, you'll conceal it at your hip. But if Aiden aims or runs, people will notice. [One person] sees the gun and there's a chance they have the balls to call the cops. But multiplied by the amount of people around you? There's a really, really high chance someone's going to call the cops. Other people react differently and start fleeing. Aiden can do all sorts of things. He can break their phone with a melee attack or just shoot [the caller] in the head, but if you do that, other people will see you shooting and it'll create a ripple effect. Now there might be two people calling the cops. How do you deal with that? You can kill both, but that's going to escalate. Or you can hack all their phones at once and shut them down. Just pulling a gun can create a ripple effect in *Watch Dogs*."

Morin goes on to explain how the police will arrive, how popping the patrol car's tyres might send it colliding into a tree or into a crowd of civilians, and how Pearce might choose to help the injured at his own risk or kill the cop and run away to dampen the ripple. Later, the media will report on the masked man who assisted a









WATCHING THE WATCHERS

In the years since work began on *Watch Dogs*, WikiLeaks has grown in prominence, Edward Snowden has become a household name, and his revelations about the NSA's PRISM programme taught the world to distrust those with whom they share their data. *Watch Dogs*' theme was a prescient one in retrospect, and it will surely be a timely game on its release. "I don't think we came out with an agenda we wanted to put forward," story designer Kevin Shortt says, "but absolutely I think we've always looked at these things – technology, how far and fast we're going with throwing everything online. And I think as we've been making the game, we've always been shocked at how little privacy we have. We're not trying to come out with a hard lesson for anybody, because I think we're still early in the curve for anybody to say this is where it's all going, but I think what we really hope is that players are going to finish the game and have conversations with each other about it. We want players to come away and think for themselves about how they feel about where technology is going and where it's taking us. And I think it's a bit of both. I would love to live in a smart city where everything runs more efficiently, but I also am hyper-aware of the risks that come with that. And I do worry about what that means for security – not just for a city or government, but for individuals."

"THE ONE THING THAT WAS NON-NEGOTIABLE WAS THE EMERGENT GAMEPLAY, THE SYSTEMIC APPROACH"

wounded police officer, or on the cop who was killed by a vigilante who deems himself above the law. The people of *Watch Dogs*' Chicago will learn of your reputation – whether you've been resolutely non-lethal, a ruthless and clinical punisher of criminals, or an indiscriminate psychopath – and will react differently the next time you pull your gun in the street.

But just pulling the trigger, even on your enemies, might be harder than usual. Shortt tells a story about sneaking through a hostile space filled with enemies who'd like to see Pearce dead. "I was ready to shoot this guy, but I had my Profiler on. Just as I got in range, his profile popped up and it said 'Newlywed.' And just in that moment, it gave me a quick pause. Suddenly, in that moment, that guy looked completely different. I'm hoping it'll have that effect on players throughout the game."

This alone is a revolution in an understated way. *Watch Dogs* might be the first game from a major studio to cure the facelessness of NPCs. These aren't *GTA*'s weirdos or *Assassin's Creed*'s walking obstacles. Rather, they're shop assistants, church-goers, prescription drug addicts, used car salesmen, bloggers… In one stroke, *Watch Dogs* is changing the nature of interactivity with the dumb NPCs filling digital worlds, for good and for bad. If a player wants to become a CEO-hunting vigilante, they have all the information they need to do so. Players can write their own stories, so you can engineer industrial accidents and car crashes to distance yourself from murder while on your anti-corporate crusade, or just hack your victims' accounts and swap places with the one percent. You can stalk a celebrity, punch a traffic warden or even simply make sure that a frail old lady gets home safely.

"I think replacing that facelessness of NPCs is something players are really going to appreciate," Shortt says. "Yeah, I think it changes how you play the game. I think that's what's going to be interesting as we move forward this generation. This is our first iteration of this, and it'll be interesting to see what more we can do as we go forward, and how much more we can pull from that experience for the player."

The game's emergent side missions support that same level of player-driven narrative, too. When your Profiler suggests a known mugger is stalking a victim, it's up to you how to prevent the crime – maybe a non-lethal takedown, a bullet to the knee, or a bullet to the head – or whether you prevent it at all. Whatever you do, *Watch Dogs*' media channels will notice, but while they'll

Activist group DEDSEC opposes Blume, the corporation behind Chicago's Central Operating System (CtOS), believing it to be abusing its access to the population's data. While you'll often take the hackers' side, Pearce can go where DEDSEC can't



Q & A



Kevin Shortt
Story designer

How has your role changed since *Watch Dogs* was delayed?
My role hasn't changed at all. When you're getting down to the wire on any big game, missions get shuffled around for the best flow. And often what happens is you have to do quick patches to still make sense of things in the narrative. In most games, you get a chance to patch it as best you can, but with this push it was a great chance for us to go, "OK, now those several patches that we had? Let's flesh those out a bit better."

You joined the project about six months into development. How much was already in place at that point?
There wasn't a lot that was established. Certainly in terms of story, there was really nothing. It was more the general concept of this city [you can control]. It was really just some early prototype stuff of how that might work: hacking some traffic lights and making them stop and start, and things of that sort. We hadn't even decided on Chicago yet.

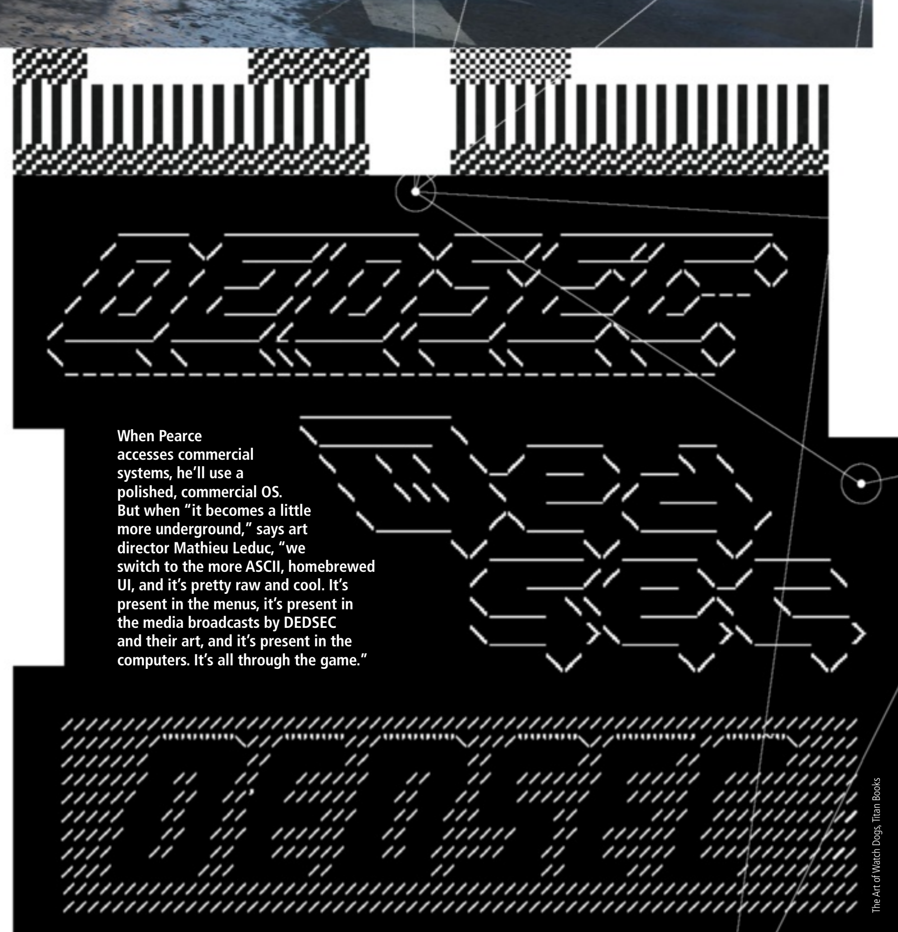
Did the original idea differ much from what the game has become?
There was a more futuristic bent. We always saw the game as slightly near-future, but as we were making the game, we'd come up with these ideas we hadn't seen before. But then we'd be constantly amazed that the news would just catch up to our 'sci-fi' ideas. It's almost like the world forced our near-future game into the present, in a way. I was in London a couple years ago, or a year ago, and I was shocked by just how many cameras I saw everywhere. The same holds true of Chicago. It's one of the most surveilled cities in America.

Sequels, novels and even comics seem inevitable. How big is the universe you've built for *Watch Dogs* right now?
Well, when we're building *Watch Dogs*, we do have to think about the world around *Watch Dogs*. Blume, the corporation running CtOS, well, who are they, where do they come from, what's their backstory? We need to know all that stuff, but we do it within the focus of the game we're putting out. Obviously there's opportunities for other stuff. What those opportunities are, I don't know. It's not for me to say where it's going to go exactly. But we certainly want to make sure that we've created the opportunities and the backstory's rich enough to hold a big universe.

judge, the game itself is more impartial. "Hey, if you want to become Dexter Morgan, we shouldn't create a world in the game where you're going to reject that feeling," Morin says. "We have a reputation system, but we don't score anything. You'll see a plus, a minus, but you'll never see the game say 'This is worth 100, this is 50, this is whatever.' We had that at the beginning and we cut it, because how can we say how much worse it is to kneecap a cop rather than kill him? They're both bad! So we ended up removing the numbers. We shouldn't be the ones dictating how the player feels about those dilemmas. That's up to them."

***Watch Dogs* is** amoral in a way *Assassin's Creed* isn't. Ezio did not kill civilians, after all, but Aiden Pearce just might. *Watch Dogs* is more *Far Cry 2* than *Assassin's Creed*, as should be expected given how many *Far Cry 2* veterans populate the team. Production began on *Watch Dogs* in November 2008, inheriting dozens of members of the *Far Cry* team, not least Shortt, writer on that project, and Morin, its level design director. "Without *Far Cry 2*, there would be no *Watch Dogs*," Morin says. "The one thing that was non-negotiable was the emergent gameplay, the systemic approach; that's part of my soul, so that's where we went.

"But we learned a lot [from *Far Cry 2*]. When the player can express themselves the way they want, it doesn't mean they instinctively do it. I think that's the biggest weakness of *Far Cry 2*.



When Pearce accesses commercial systems, he'll use a polished, commercial OS. But when "it becomes a little more underground," says art director Mathieu Leduc, "we switch to the more ASCII, homebrewed UI, and it's pretty raw and cool. It's present in the menus, it's present in the media broadcasts by DEDSEC and their art, and it's present in the computers. It's all through the game."

The Art of Watch Dogs, Titan Books



VERSION CONTROL

With all the talk of *Watch Dogs* kickstarting the eighth generation, it's easy to forget there is a 360, PS3 and modestly delayed Wii U backport due for release this year. "*Black Flag* was [built for] current gen then [ported to] next gen," says creative director Jonathan Morin. "Us, it's the other way around. And it's just a matter of the kind of game we are. We had systems to try, so we didn't want to restrain ourselves. But we constantly had a [PS3, 360 and Wii U] team that was involved in the discussion, and we wouldn't shut down an idea – ever – because of current gen. Instead, they would challenge themselves to reproduce [a feature] when they couldn't exactly do the same thing [as the eighth-gen consoles]. But really, in the end, it's pretty much the same for an average player. For me, I can tell you there's more people, more cars and this and that [on PS4 and Xbox One]. There are slight differences, but they're very small differences, and I would say those differences are even smaller now, because tweaking their solutions was a natural thing to polish. Some of their solutions are just better executed now."





Pearce's mask emblem (above) represents a broken pulse, symbolising his position as an agent of change in a connected city. His second emblem, an abstracted fox, appears throughout the game, but its significance hasn't yet been revealed

The way I play that game is the way only a few people play that game… Not every player will embrace all the possibilities. That's something we can address in *Watch Dogs* with the extra time."

And what of the despised system governing *Far Cry 2*'s endlessly respawning checkpoints? "That was actually the sort of thing we would've been able to fix in *Far Cry 2* if we had the same extension," Morin laughs.

"Systemic games are hard," he says. "If you end up in the situation where there's an exploit – one single exploit – and the player finds it, then they won't express themselves ever again. I know if there's an exploit, I'll use it every time, and I'll call all the missions repetitive and boring. So I think that balance is something we took a lot of care with. We always make sure the player can express themselves the way they want, but sometimes events evolve in a certain direction where you need to adapt to things [to make it] more likely they will become interested in combining the systems. I wouldn't say, 'Here, I want you to use this gun, because

The exaggerated reality of Chris Nolan's Batman movies is an influence on *Watch Dogs*' art direction





you haven't and it's really cool.' I don't like that. But say you always play stealth, we'll find a moment to destabilise you, to make you try to explore hacking or shooting instead of going for your comfort zone all the time. That's a very important nuance and it does pay off quite a lot. Plan A. In the end, the game's newest feature is one players will never consciously notice.

"Consistency," Morin says. "Consistency is the right word. When everything started to connect to each other, we started to feel the limitations of certain reactions. When you have so many animations, so many audio bars to do, so much text to write… the amount of content is so outstanding that when you start to play the game, sometimes you hit something you've never seen before and it's not right, so you need more time. A game like this doesn't start by [us] saying, 'Hey, let's make the biggest, most complicated emergent city ever.' You're going to receive a big 'no' as an answer. But if you have the right people, who are agile enough and who know how to use their tech really well… then you can start executing ideas. You build momentum and you get cool results, and that's how *Watch Dogs* slowly became *Watch Dogs*.

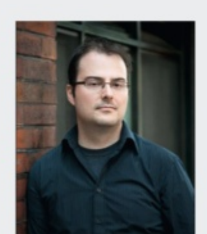
"I would love for *Watch Dogs* to open more players' eyes to the idea of testing a game and expressing themselves within it, instead of following the ride. I don't have anything against games that just ask you follow a predefined ride, but I would love for more players to develop a taste [for systemic games]. I feel like games are dumbed down because we want to make money, and sometimes we underestimate what players can do. I hope *Watch Dogs* can show everyone that it's possible to do online games without being intimidated by a lobby, that it's possible to see another player without being scared it's going to be a 12-year-old shouting a bunch of insults, and that it's possible to make a game where you can test the systems and push at the edges without feeling like you're working. I hope it can do all that, and if it could be a game that helps players have a bigger conversation about our relationship with technology, that would be awesome too." ■

"I KNOW IF THERE'S AN EXPLOIT, I'LL USE IT EVERY TIME, AND I'LL CALL ALL THE MISSIONS REPETITIVE"

To have every player find the variety for themselves – that's hard."

It may be tough to make a game like this, but Morin is pragmatic about it. The story he tells of past five months is similarly short on drama. There was no last-minute mandate from above, no sudden replacement of the key staff, no panic, no changes in direction, only a decision to make *Watch Dogs* without compromise and to make every solution to every problem the studio's

Q & A



Jonathan Morin
Creative director

What effect did broken systems have on the game you were about to ship in November?
There were some areas or missions where the wires connected in the wrong way. And it's not really the mission itself, it's the emergence it can create. So once you have cops showing up in a certain situation with this and with that on top of it, and it starts getting out of control in a good way, it kind of collapsed. In certain combinations, the AI didn't react at the level of quality we wanted.

Are you certain the final game will be rid of those bugs?
I'm sure in the end we'll find YouTubers who, you know, find such examples… and it's arguably all part of the fun to find the limitation of systems. But since we've sold precisely that [high level of experience to players], there's a level you need to achieve. If you do a car crash, it needs to feel like a car crash, not a *Burnout* version of it. You don't want to cheat so much to make it possible that it becomes cartoony.

What makes the focus on realism and giving everyone a story worthwhile?
We're really good at the awesome car crash in videogames, but not the "Oh my gosh, is he all right?" afterwards. We put 'Combo x2' next to a car crash and we don't even think about the poor person behind the wheel. So when we started to define a serious tone as a pillar, it impacted everything. If there's someone hurt, you can get them out. If there's a car crash, it means something for the people inside. If you take cover behind their car and they get shot, it's your fault, because you took cover behind that particular car. But we don't go in a judgemental direction because of the serious tone. I'm not interested in having a game that says to you that stealing from a poor person is worse than if you stole from a criminal.

What's the biggest difference about building for new consoles from scratch, rather than the older systems?
I think the distinction is the amount of different AI reactions. And when actually looking at the data, it wasn't that good, because it's in the polish phase you can really deliver the full system. The extra time gave us the luxury of executing it well, which is a lot harder. Back in November, people could have appreciated that we'd tried it, but we didn't want that. We wanted people to just enjoy the systems without thinking about them.

AN AUDIENCE WITH...

TIM SCHAFER

Broken Age's creator on learning from old genres, the difficulty of sequels, and the power of Kickstarter

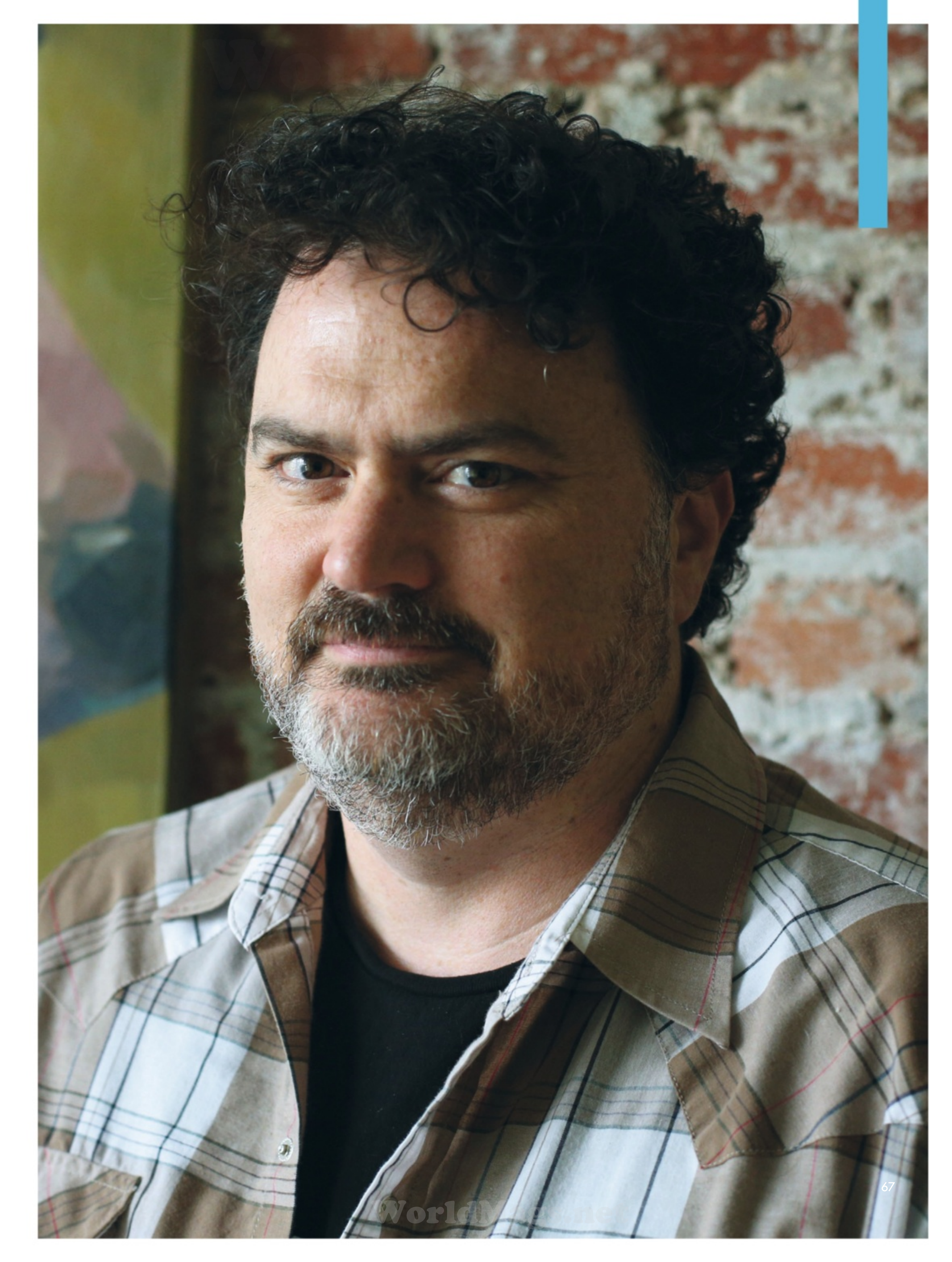
Few developers can lay claim to as many cherished games, or characters, as **Tim Schafer**. Starting out as a tester at LucasArts in 1989, he worked his way up to tools programmer, then co-wrote 1990's *The Secret Of Monkey Island* with Ron Gilbert. *Full Throttle* and *Grim Fandango* saw Schafer refine his idiosyncratic storytelling style, even as the genre he'd helped shape began to stutter. His more recent work as creative director of Double Fine – *Stacking*, *Sesame Street: Once Upon A Monster*, *Brütal Legend* – has contained a series of experiments with both story and format, but Kickstarter phenomenon *Broken Age* marks a long-awaited return to his roots. Here, we ask Schafer about resuscitating the point-and-click with a new funding model, and the state of storytelling in modern games.

Why did you decide to take *Broken Age: Act 1* out of Steam Early Access and put it up on the storefront?
Initially, we thought, 'It's in beta [and] it's going to have some bugs while we fix the second half, so we're going to release it on Early Access'. But when we looked at how the team had polished it all up, it looked like a complete package, not some incomplete broken alpha. We did mock reviews for the first time, and those came back very positive, so we decided to move it and thought, 'Hey, this deserves to be on regular old Steam'.

Did you have any concerns about returning to point-and-click games after so many years?
It was fun to revisit them after a lot of time and see how not everything adventure games used to do has been replaced. It seemed like in the old days, adventure games had the monopoly on character and story and beautiful art and sound. And then other games kind of caught up with those things: they present a narrative, they have beautiful art and music. But it was interesting seeing what was still left behind. A lot of it was hard to describe, but it was a pacing thing. It was the way that your mind works when you play an adventure game [and] how it is to play something that moves at your pace and lets you sit there and think if you want to sit there and think. And it was really fun to examine that, to think about what is really important to adventure games and what isn't. Like, is it super-important that we have a million verbs on the screen, or is it more important that you're transported to another world and that you feel like you're in a real place, and that you're exploring and thinking about how the pieces of the puzzles fit together?

The quality of storytelling in videogames today is often underwhelming. Does that frustrate you?
No, it leaves a lot of room to stand out as being a good writer in games! [Laughs] But I agree that there's not a lot of good writing in games, and it's frustrating that even when you see games that are held up as great examples of writing, you think: if that game was a movie, you would never go see it. You would never talk about that story. You're just so amazed that a game has any story at all that you're calling this an amazing story. But really it wouldn't stand up to a book, or even a comic book. I wish standards were higher, but I think the best thing to do is try to make the best games you can – I don't think it's solvable any other way.

What's your take on Telltale's *The Walking Dead*?
The interesting thing is what they're doing isn't bringing back point-and-click, but they're kind of carving out their own genre of interactive narratives more similar to ➋



"It's amazing that people what we paid everybody What amazing accountants



CV

Schafer's work on 1990's *The Secret Of Monkey Island* secured him an enviable reputation and set a new high-water mark for adventure games. But it was *Day Of The Tentacle* that saw him graduate to co-designer and begin to make more of a mark on LucasArts' golden era of point-and-clicks. *Full Throttle*, released in 1995, was Schafer's first solo lead role, followed three years later by the ambitious *Grim Fandango*, which offered a glimpse of the genre's future but ultimately served as a last hurrah for LucasArts point-and-click games. Schafer founded Double Fine Productions in 2000 after his departure from LucasArts, and his studio has gone on to produce the beloved *Psychonauts*, the divisive *Brütal Legend* and, of course, *Broken Age*.

Heavy Rain-type interactions that's more about player choice and not so much about puzzles. And so I think that's a branch on the family tree of narrative-based interactive fiction, and point-and-click adventures are another, just like text adventures. For people who like exploring fantasy worlds and discovering interesting characters and places, they might like all of those kinds of genres. But some people only like one or the other, so I think it's great that Telltale's carving out brand new territory.

Do you think the time between instalments in episodic gaming is holding the model back from its potential?
It's agonising sometimes waiting a week for a new episode of Game Of Thrones! And when [shows] go away for a while, you feel like punching the TV, 'cause you're like, "C'mon, just give me the entertainment I want *right now!*" But the reality is that it's different for the people making the stuff; I can see why it would take four months to make an episode of *The Wolf Among Us*. But people are used to comic books coming out maybe once a month, you know? That might work for [comics], but it's hard to make a game in a month. It takes a month to stabilise a build and fix the bugs sometimes. And so you would have to pretty much have multiple teams working on it [to] deliver one a month, and I've seen people try that. A lot of people are working on those problems, and Telltale is probably ahead of everyone in that area.

But do you think episodic gaming could benefit from staggered development, something closer to TV?
I don't know; people are coming up with new models all the time. Alpha funding is really interesting because the public can weigh in on the direction your game takes. And it's great for [developers] who don't have a lot of money, because they can take some of the money that people want to pay just based on the promise of your game and use it to fulfil that promise. I don't think any one answer is really the right one for games, because they're all so different and demand different things from people. I think episodic works for some games, alpha funding works for others, and the regular old 'wait a year for your next edition of *Halo*' works for that game. I just like the fact that people are exploring new methods all the time and coming up with new ways to deliver the goods.

***Broken Age*'s Vella is a wonderfully naturalistic and strong female character. How do you feel about the state of female characters in games right now?**
There's a lot of things that overlap between issues of social justice and issues of creativity, and they overlap a lot. Some people might describe it as representational issues in games – maybe they want to have characters of this type or that type – but there's a creative reason to tell new stories that haven't been told before, and that leads you to telling the stories of characters who often aren't featured in games. That just naturally creates stories that feel fresh, which also means characters that feel fresh, and making them feel fleshed out and real is a creative thing. All your characters need to be fleshed out and real. And it's not like you're doing that on purpose just to make a person of a certain gender or ethnicity believable, you just want all of them to be [that way]. I've always done that. In *Full Throttle*, we had this character called Maureen who thinks you killed her father for a long time. I remember making a special chart for what Maureen thinks is going on throughout every act in the game. So while you are trying to clear your name of the crime, I'm thinking, 'OK, even though she's not in the scene, I want to consider what she's thinking about all through this, so that when you see her again, she's been through something, she's changed and now she's thinking differently'. And it shows in her dialogue, her posture and everything. You want to think through all of your characters.

What's your response to the criticisms levelled at what people assumed was an expensive *Broken Age* cast?
It's amazing that people somehow knew what we paid everybody. What amazing accountants they must be! I mean, we can't go into details about what people were paid, but if Double Fine does something, you can pretty much count on the fact that we did it in a very scrappy and affordable way. I can tell you that from the very beginning we had a budget per line in the game, and our costs per line

somehow knew [for Broken Age]. they must be!"



didn't go up from that very first budget. We had more lines in the end – so our overall voice budget was bigger, because the game grew bigger – but our cost per line never went up.

In a game that relies on its story, getting the cast right is surely a priority.

I feel like it's really important. The reason we used people like Jack Black and Elijah Wood is not because they're famous, but because they're super-great actors. When I worked with Jack on *Brütal Legend*, I did kind of pick him for that, because he's so close to what I had imagined for Eddie. But then after working with him in the studio and seeing how broad his range is, casting him as a completely different person in *Broken Age* was a great thing to be able to do. And with Elijah, I was really worried that Shay would come off as whiny and petulant, because he's such a teenager and so over it and rolling his eyes all the time. And I was like, "People are not going to like this guy, because he seems like a spoiled brat". But when we cast Elijah, he's such a good actor that he brought this warmth to it, and you just can't help but like Shay and identify with his boredom and frustration. And not to mention all the other great actors like Masasa Moyo and Jennifer Hale, who can just do anything. So it's great to work with great artists of all kinds.

You've expressed misgivings about the way dialogue trees are handled in games. Do you have any ideas as to how they might be improved?

I just remember when we were doing *Grim Fandango*, we changed a lot about the [classic point-and-click] interface. Our mantra was 'No metaphors'. There's no metaphor for the interface in *Grim Fandango*. You see Manny's hand reach into his coat, he pulls out an object: everything is literal. We don't show that he's interested in an object by highlighting a glow. We show that he's interested by tilting his head and all that stuff. The only thing we couldn't turn into a literal display was the dialogue trees, and I was like, "I literally don't have a better idea for dialogue tree than dialogue tree". [Laughs] In *Psychonauts*, we were able to put the dialogue trees in a thought bubble, and I was like, "Well, that's kind of literal".

Having succeeded on Kickstarter, do you think crowdfunding is here to stay?

I think it's definitely here to stay. I don't think it's necessarily the answer for every situation, but it definitely changes the game completely. Not every person is going to be able to pull it off, but if they have a really compelling idea and a really interesting take on it, they can call people to support their project and don't need to go ask some big company for a lot of money. Which is great, because that money's going to come with a lot of strings attached. It's great because it allows people to say they want their favourite show to come back on the air, or they want their favourite game genre that's not being made any more to get made. I don't think people are ever going to turn away from that. What I hope is that people learn to understand what Kickstarter is, because I think there's people who really get it – that you're backing an artist who you believe in, and you're getting rewards as a thank you gift – and people who think it's just a preorder system, like a loosey-goosey version of Amazon or something. It's not that, and the people who don't understand that are very frustrated and sceptical of it.

Are you concerned about Kickstarter's tendency to bring back dormant series and genres, though?

No, I think the great thing about Kickstarter is that it's self-correcting, you know? If there's people that want it, it will work out, and if there aren't people who want it, it will not work out. If there's someone who uses it, abuses the system and doesn't deliver, they won't be able to do that again. So it might take time to work all these things through, and the whole backlog of things that people think can be resurrected might have to pass through it, but once that's done, I think things will correct and it will adjust.

Is there anything you don't like about Kickstarter?

The main problems are we don't know how to do a lot of things right with Kickstarter yet. Like press embargoes – when we went out to backers, there was a little hullabaloo about embargoes. Maybe this is more about transparency than about Kickstarter, because we're being really

Broken Age **might belong to a genre some would call outmoded, but as an early Kickstarter experiment, it has helped pioneer a thoroughly modern way of funding games**

"The only downside to Kickstarter is that we're in such untested territory"

transparent with our process and letting our backers see everything. Most people just don't realise that many reviews are embargoed, and for very real practical reasons. Like, maybe the guy from **Edge** is in town this week, but our game's not shipping till next week, and all the other reviews are going to come out then. But he's going to look at it today, so we do this embargo and that way everyone gets a fair shot at having a review without being scooped. That's one of the reasons they exist, for sure. But we were giving our game out to the backers who might have wanted to write reviews of it themselves, and they'd have the opportunity to do that before the press, which seemed kind of unfair. So we were like, sheepishly, "Please just try not to talk about it. If you can just wait two weeks before you do your in-depth reviews. Maybe do some let's plays?" And some people don't have the mentality that they're backing or supporting an artist by pledging on Kickstarter, but that they're purchasing a product. And they were like, "I purchased a product, I get to talk about it. This is my game and you can't tell me not to..." And so there were a couple of people who were breaking the embargo, so we just felt like, oh, we'll just let it go, so we lifted it. I think people just resented being told they couldn't do something, and they found it horrifying to think that there was such a thing as an embargo. But a lot of our process through doing the *Broken Age* documentary is kind of horrifying people and letting them know the funny things that go on behind their games that they don't know about. And so the only downside to Kickstarter is that we're in such a new, untested territory. You don't know how people are going to react, and there are so many people who are suspicious of Kickstarter and feel like it's a scam or Ponzi scheme. I think time will prove them wrong, but in the meantime it's slightly annoying having to deal with them.

You said recently that you'd like to return to *Brütal Legend*. Is that something you're considering seriously?

The only thing annoying about those news stories is that I say that in every interview when anybody asks me! Whenever someone's like, "Hey, do you want to do a sequel to this game?" I'm like, "Yeah, sure, dude!" Given the opportunity, I'd do a sequel to any game. If someone was like, "Hey, here's a bunch of money – make a sequel to that game," I'd probably have ideas for whatever game they're talking about. Now that we've shown that we can make our own opportunities with *Broken Age*, people are asking again if we can do that, but I don't know if I could Kickstart a $30m game, which is roughly what *Brütal 2* might cost. But while we could do that sequel, we also have a bunch of new ideas that we want to make instead, which has been the main reason we haven't done sequels. Well, apart from *Kinect Party*, of course!

If you did go back to make another *Brütal Legend*, what would you do differently?

It's still our best-selling game, but even with that it had this huge polarisation when it released: some people just did not like the RTS elements. I think there's a lot we could do to make the RTS elements better, and better explained, and I would love to get the opportunity to do that. But there are some people who would be like, "I just wanna do the story and I really don't want all these other elements," and the question would be to what point I'd allow those people to change the game. Part of me just likes [the idea of] fixing what's there and being true to the original. Because the original idea for the game happened all the way back when I played the first *Warcraft*. I wanted to do a version with big daddy rock demons and hot rods. It's so core to what the game is to me that I can't imagine getting rid of that. And I also feel that most of the people who complained about that were the ones who didn't necessarily really give it a fair shake. I mean, I still go and play that game online with people and I love the staged battles, so I really wish that there was a way to make them easier to enjoy for everybody.

***Broken Age* initially felt like a bonus project, but do you see a future in making more point-and-click games?**

We have the engine for it now, and the know-how, that's for sure. Historically, we've always made the opposite of whatever our last game was, but who knows? Next time we do Amnesia Fortnight [Double Fine's yearly prototype game jam], if anyone pitches a game that uses that engine, then we could be off and running on a new adventure game. It also depends on how well *Broken Age* does! ■

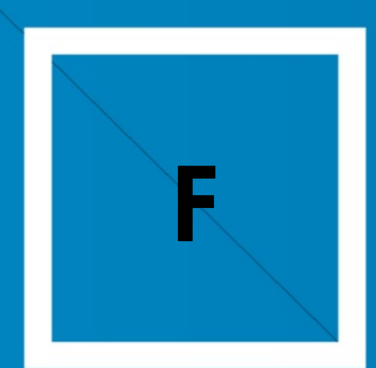
BETTER TOGETHER

It's fitting, given the crowdfunded nature of *Broken Age*, that Schafer sees the point-and-click genre as a social one. "I used to play with my dad – I'd sit there playing text adventures and get stuck and then he'd go, 'Let me sit down for a second!' And then he would try it and that would give you a break, you know? A lot of people play adventure games together. Part of that is because their presentation is so good that they're fun to watch, and it's not so much dependant on you feeling the feedback of the controls and stuff like that. It's more about making the same decision that the player is making just by watching them play. You can be like, 'Drag that, put that there, read the book to the horse. Do it!'

EYEING THE VIRTUAL FRONTIER

Virtual reality is almost ready for its second coming. We speak to the pioneers of a new way to develop and consume videogames





Few devices have ever looked as likely to bring about radical change in the videogame industry as the virtual reality headset. Oculus Rift – and surely a raft of imitators to follow – places you at the centre of an immersive stereoscopic world. In doing so, it overturns many of the fundamental assumptions about how games are produced, controlled and experienced. Oculus's own guidelines detail hundreds of ways VR games need to work differently to conventional ones to avoid confusing the human mind. That's because VR isn't just a new way of seeing a game, but a new frontier in game design, which makes it hard to predict what the future of videogames will look like.

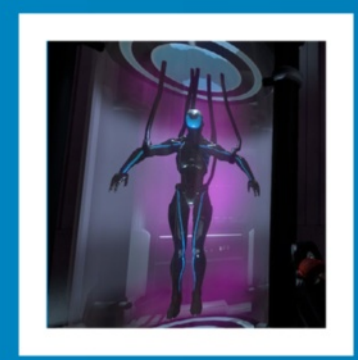
But by speaking to those development studios brave enough to chart the new frontier, we can get at least some idea. And for an analogue of the kind of change now happening, you could do worse than consider CD-ROMs. Their popularisation in the early '90s provided games with a storage medium hundreds of times the capacity of standard floppy disks, and the industry lurched to make use of all the extra space, producing re-releases of older games (now with spoken dialogue), terrible games with full-motion video starring real actors, umpteen adventure games with higher-res textures than previously possible, and *Myst*.

Oculus Rift has already inspired a raft of frighteningly similar projects, with developers simply attaching a VR camera viewpoint to traditional games, but these are just the start. In time, massmarket virtual reality headsets might be responsible for a larger and far more exciting adventure game renaissance than Kickstarter ever was.

"The most interesting thing in the Rift is the spatial perception – the fact that you are in [a] space where there is depth," Untold Games' **Flavio Parenti** says. "So you can actually locate the objects around you and know how far they are from you."

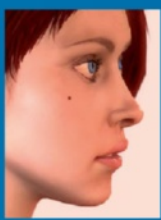
Parenti is an Italian actor and writer working with Untold on *Loading Human*, a VR adventure game that blends Rift for the eyes with motion controls for your in-game actions. Untold thinks being able to place players at the very centre of its world marks a tremendous opportunity for storytelling.

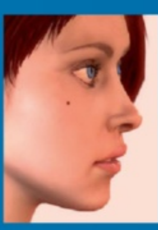
Loading Human is a VR game about living inside a virtual world, one built to help its protagonist retain his memories in spite of a degenerative brain disease. This meta-narrative allows it to take in sci-fi locations as well as mundane living-room sets





Flavio Parenti is a writer and actor who has partnered with Untold to make *Loading Human*





Loading Human's virtual world-within-a-world was built by Michelle, the protagonist's partner. You must explore her memories to complete the missing parts of your own mind

Loading Human uses the Razer Hydra, a motion controller that maps your hand movements directly into 3D space

ENGINE POWER

Oculus is keen to make sure that creating for Rift is as painless as possible for developers. "We're working directly with a lot of engine creators, like Unity and Epic, to optimise the integration of Rift with their engine in a way that minimises the latency and the difficulty of doing a virtual reality game," Rift creator Palmer Luckey says. The solution isn't a DirectX-style piece of software that sits between games and the hardware, though. "A lot of it is going directly into their products. It's not a layer we're making that sits between other people's stuff and ours. It's working directly with them to improve their engine for virtual reality."

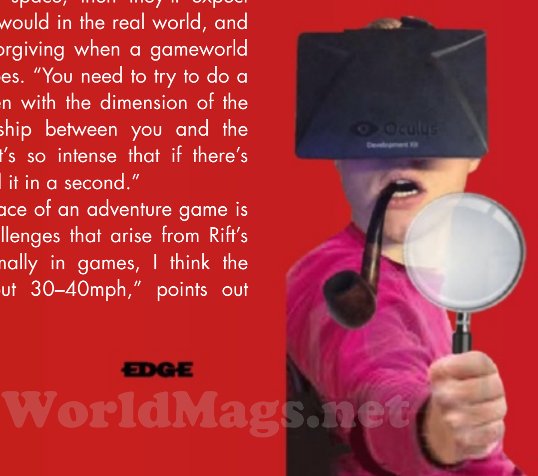
"I think that in a game like this, you are able to give the player access to much more detail than you would with another game," Untold developer **Elisa Di Lorenzo** says. "Adventure games have always been slow paced. You're going to stay in an environment and you're going to explore it, because it's a new environment and you can check everything."

Developers have found that viewing a gameworld with the sensation of having a physical presence within it encourages players to reach out and tinker more with its details. In *Loading Human*, you can interact with everything you can see. You can pick up vinyl records, place them on a gramophone and they'll play. You can pore through your character's bookshelves or play a game of draughts. You need only let your gaze linger on an object to hear your character's thoughts about that item. "With the immersion of the Oculus [Rift], it becomes so natural that you don't even feel like you just did something with a button," Parenti says. "It's much more organic."

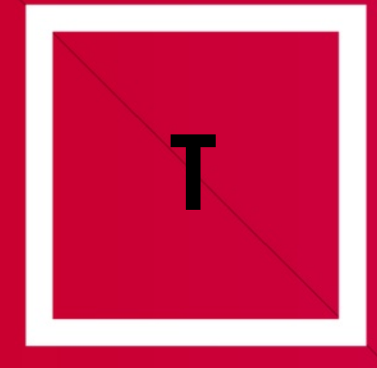
Meeting expectations, however, becomes all-important. If you make players feel like they're a person inhabiting a real space, then they'll expect things to perform as they would in the real world, and they become much less forgiving when a gameworld doesn't work as reality does. "You need to try to do a one-to-one simulation, even with the dimension of the objects and the relationship between you and the objects," Parenti says. "It's so intense that if there's something wrong, you feel it in a second."

The naturally slower pace of an adventure game is handy too, given the challenges that arise from Rift's current limitations. "Normally in games, I think the characters move at about 30–40mph," points out Parenti. "It's very fast paced. Of course, it's a videogame, so you just watch it. But if you do that in virtual reality, you're going to puke. You're moving too fast as a human being."

When the desire for realism and the need to not make your audience feel nauseous are coupled with technical demands, such as Rift games needing to be rendered at a much higher framerate, virtual reality starts to lend itself better to realistic or mundane settings than it does to the action-packed fantasy worlds we're used to. Using Rift to play *Quake* would feel unnatural not only because it would be too far quick, but because we instinctively want our doorways to be sensible doorway sizes.



Private Eye currently exists only as a short proof of concept, but its developers are currently turning the Rear Window-style game of housebound detective work into a full release that's due to be finished this year



IN VIRTUAL REALITY, A LITTLE GOES A LONG WAY, AND A LOT MAKES YOU THROW UP

his is backed up by other indie development projects that have been released for Rift. As much as they mirror the focus on exploration and narrative of old point-and-click adventure games, they're also fine examples of the way old definitions no longer fit in VR worlds. These games aren't controlled via pointing and clicking, and are far more mundane than the videogame adventures we're used to, but they point to an exciting new future for storytelling.

One example is *Private Eye* (www.privateeyevr.com), made by Jake Slack for Oculus's own VR Jam, a game that takes inspiration from Alfred Hitchcock's Rear Window. Although a full version is in the works, the jam build is playable now. In it, you take on the role of a wheelchair-bound detective gazing out of a window over an allotment surrounded by other apartment buildings. You look down at a notepad in your hand and spy through windows with your binoculars, hoping to find the clues you need to prevent an impending murder.

In *Anamnesis* (www.anamnesis532.tumblr.com), a class project by Alexa Kim and Scott Stephan at the University Of Southern California, Rift becomes a secondary display port rather than a head-mounted display. You walk around a realistic environment and lift the headset to your eyes in order to view the 'psychic residue' left behind by other people as you explore an apartment building.

Each of these games represents a clever way of exploiting Rift's capabilities, but also of getting around its limitations. *Anamnesis*, for example, dodges the motion sickness inherent in the original Rift devkit by not requiring you to wear it at all times. Despite a few indicators of progress, however, there's still a huge number of challenges for developers to overcome.

"No one has really found the best practices for how to make a game in VR," **Sigurður Gunnarsson** says. As a senior programmer on *EVE Valkyrie*, he is well positioned to comment. The spaceship dogfighting game is one of the few VR games currently announced from a major developer, and its prototype has been wowing players at trade conferences such as E3 and CES for the past year. *Valkyrie* is, Rift creator **Palmer Luckey** says, the best demonstration of Rift's capabilities yet.

Space games found new life with the advent of CD-ROMs, too – *Wing Commander III* was the first in the series to cast real actors, such as Mark Hamill, in its cutscenes. But CCP has thrown out a lot of old assumptions to avoid the trap of simply bolting a VR camera onto an existing genre. For example, since players wearing a virtual reality headset can no longer see their hands, the developer is taking great steps to simplify its control scheme, which means *Valkyrie* has no throttle. Instead its ships have permanent momentum, but a temporary boost and a brake button. But even boosting and braking introduce problems. "One thing [to avoid] is sudden changes to the velocity of the player, so no drastic acceleration or braking," Gunnarsson says, "because when the brake hits, the giant change in velocity [means] the brain thinks it should feel the force of slowing down."

It's the same thing Parenti pointed out: 'normal' game speeds feel freakishly fast when you're using Rift. Even in an action game like *Valkyrie*, which is built around five-minute dogfights, there's an emphasis on toning motion down.

"From an aesthetic point of view, we don't have to give the hard sell any more that 3D effects are happening," says **Andrew Robinson**, a 3D artist on *EVE Valkyrie*. "It's a much more tactile environment, so we really don't have to push as much fakery



Sigurður Gunnarsson, *EVE Valkyrie*'s senior programmer



At first, speculation abounded that *Valkyrie* was tied to Sony's VR device, but in February CCP signed a deal that made it an exclusive Rift title




Rift creator Palmer Luckey

OPENING VALVE

At Steam Dev Days, a Seattle game developer conference hosted by Valve Software, the company showed off its own virtual reality prototype. It was built as an example of what VR could become in five to ten years, and it seemed to convince everyone who used it. Its key difference from Rift is that it requires users to be in a specially decorated room dotted with black-and-white markers. Luckily for those who don't enjoy decorating, Valve has no intention of releasing its prototype, despite its hardware ambitions with Steam Machines and controllers. This hasn't stopped Jonathan Blow working with Valve to make his next game, *The Witness*, work with the system, however.

around to make you feel as if things are going on." In virtual reality, a little goes a long way, and a lot makes you throw up.

Even with the reduction of so-called 'simulator sickness' – the hardware-originated feeling of nausea – that the new Crystal Cove Rift prototype brings, experiences such as spinning around in a spaceship could make you as queasy in a VR game as they might in real life. But a few visual aids can help.

"Just having the cockpit constantly around you, it grounds you in the scene," Gunnarsson says. "Even just being able to look down and see your avatar, that you're in this body, also helps a lot."

That particular limitation of the human brain bodes well for driving and flight games using Rift, where the fixed cockpit provides context and the natural sitting position of the player character isn't at odds with your own posture. But the smallest disconnect between you and that avatar can cause problems. "One thing that we picked up from the early demos was that we used to have the hands [sitting] by your side," Robinson says. "People were sitting playing *Valkyrie* with their hands obviously central, towards the Xbox controller. At some point, we moved the hands into the centre to [make you] feel like they were wrapped around the Xbox controller itself. It's a tiny change, but it makes a world of difference."

Even something as simple as the length of your neck, specifically the difference between it and the length of your avatar's counterpart, can cause a disconnect between your brain's perception of your body and what you're seeing in the game. The future might see games in which you enter your height or dimensions during character creation to make the avatar match your build as closely as possible, and might consequently feature fewer burly space marines.

This need for an increased closeness between your real body and your body in virtual reality could also drive demand for new peripherals that work alongside a Rift headset. Untold, for instance, is making use of Razer's Hydra, which offers advanced Move-style motion controllers that can track your hand movements in 3D space. "In virtual reality, the game is around you, so you have to use yourself," Parenti says, speaking about *Loading Human*. "You need to get rid of the objects and use your hands. It's the only way a virtual reality game can be enjoyed, from my point of view."


Cockpits should prove the perfect setting for virtual reality games, since sitting down inside the game's reality apes sitting at a computer

CCP believes the same. Why position a model's hands where the team thinks you'll place them when it could just track your hands and mirror the movements in realtime? "People are also playing around with Kinect and recently the [updated Xbox One version], and that seems to be quite nicely used in VR to track the rest of your body," Gunnarsson says.

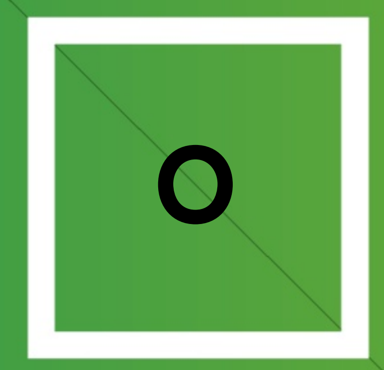

The point of the early Oculus Rift Kickstarter was to get devkits into the hands of game makers around the world. It's popped up everywhere, including on the face of *Metal Gear Solid* creator Hideo Kojima

Robinson wonders if people might go even further. "I had a great conversation one time with Palmer Luckey," he says. "One of the first times he played *EVE Valkyrie*, he told me about how he'd quite like to build some of the cockpit panels in his house around his desk, so that when he put his hand out to touch things in the game, he would touch things in real life. I can see people wanting to put as many senses into the game as possible."

When asked to pick which genre he thinks best suits virtual reality, though, Luckey himself is diplomatic. "I think it would be too premature to say what the best genres are going to be," he explains, "because there are people that are making these new experiences. I don't know if anyone knows what the best genre for VR will be."

Gunnarsson is blunt, however: "The low-hanging fruit is obviously simulation games where you sit in a cockpit. That's quite easy. You're not walking around with a lot of the problems that can come with that." Early indicators are he's right, with a rash of driving games, such as *Euro Truck Simulator 2*, already retrofitting support for Rift's development kit with good results.





"YOU'RE LIVING IT. THAT'S WHY PSYCHOLOGICAL HORROR GAMES ARE MOVING INTO THE AREA"

therwise, the consensus is that Rift is the perfect partner for horror games. "I tried a few of the horror games, and they are very immersive. It's just the depth of experience is so different," Gunnarsson says. "If you meet an avatar, either another player or a monster, and it looks you in the eye, that's such a strong connection. They're also going to get people really, really, really scared."

There are dozens already in development for the Rift devkit. *Alone* is a VR game in which you play a person playing a traditional horror game on a television that only exists in the virtual world, and in which elements of that game begin to bleed into your virtual reality. It plays on the paranoia players can feel about their surroundings when their senses are consumed by a Rift headset.

Doorways, meanwhile, is more a more traditional horror adventure set in dark tombs, *Don't Let Go* features a scene in which you must watch tarantulas crawl up your body, *Dreadhalls* is about exploring a roguelike dungeon, and *CDF Ghostship* introduces science-fiction elements to evoke the same kind of dread as the Alien films. Many of these games still rely on jump scares and horror clichés, but they've been refreshed by cleverly exploiting the personal closeness players feel when immersed in VR.

"[Rift]'s taken away some of those barriers where you're sitting far away from [a game]. You're living it. That's why psychological horror games are moving into the area," Robinson says. "I wouldn't like to play *Slender* in VR. That game scared me so bad as it was." Virtual reality support is, of course, already on its way for *Slender: The Arrival*.

While Rift is undoubtedly a powerful tool for scaring players, many of these games feel like the most obvious first steps into a new medium. In that sense, they may prove to be Rift's equivalent of the 'interactive movies' of the past: for a brief moment interesting, but soon embarrassing in their simplicity. Ultimately, the perfect parallel between virtual reality development and early CD-ROM development might lie with a single person: John Carmack. CD-ROMs found their footing within the videogame industry when we found ways to make fun from the higher-definition worlds they enabled. *Quake*'s textured, polygonal environment and fast-paced FPS play were vital parts of that process, helping to define the next two decades of both engine programming and mainstream game design.

Carmack might help to do it again. The industry veteran has joined Oculus as its chief technology officer, and is working on game projects there. Luckey can't yet discuss those with us, but he talks about the company's efforts to make its hardware work as seamlessly as possible with various game engines. He also reveals that engine latency specifically "is one of the things Carmack is working on. He's working on many other things, but it's one of the key things that we need to do. We don't want developers to worry about the technical details of how exactly to implement virtual reality. We want them to have the technical side taken care of as much as possible, so that they can worry about the creative and user experience side."

Whether it's Carmack developing tools and even possibly being the person to carry the FPS forward again, indie developers finding new ways to tell stories and breathe life into hoary horror clichés, or mainstream developers defining how virtual reality will be controlled for decades to come, it's easy to see how game creators are already being inspired by the new technology. Yet it's all the unknowns surrounding VR that remain the most exciting thing about it. The new console generation was revealed to a muted response because it was exactly what we thought it would be: more social, more connected, and packed with more particles and pixels than ever. With virtual reality almost ready to start leading the way, the future of videogames has become unpredictable for the first time in a little under a decade. ■

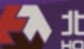


John Carmack joined Oculus VR as its CTO in August 2013



Rift's immersive power makes it the perfect home for easy jump scares. *Don't Let Go* and *Ghostship* are the just tip of the genre iceberg


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REVIEWS. PERSPECTIVES. INTERVIEWS. AND SOME NUMBERS

STILL PLAYING

Puzzle & Dragons iOS
The virus is spreading. Conversation inevitably turns to GungHo's puzzle-RPG, with phones whipped out, teams shown off and strategies shared. Between hunting for specific drops in the daily dungeons, farming coins at the weekend to fund the coming week's levelling, and revisiting early dungeons for monsters to feed to your team's superstars, there's always something to do. Still playing? Oh, yes. And we're beginning to wonder if we'll ever stop.

Dark Souls PC
The wait for the final build of *Dark Souls II* gave just enough time for another run through the original. It's remarkable how something that was once so intimidating has become so familiar, and we'd reached the summit of Sen's Fortress within five hours. We may not visit Lordran again for some time, though, and given fast travel's impact on Drangleic's world design, we can't help but wonder if we'll see its like again.

Rayman Origins 360
Talking to Michel Ancel, and eager anticipation of *Legends* in 1080p, prompted a fresh visit to the Glade Of Dreams. We soon found ourselves utterly absorbed by the rhythm, Ancel's team warping platform clichés into something with captivating momentum. Playing it back to back with *Yoshi's New Island* was a cruel mirror, but only served to prove how crucial intelligent and subversive level design is in this genre.



REVIEWED THIS ISSUE

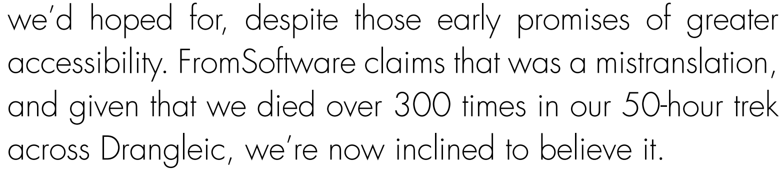


Identity theft

Square Enix announced *Thief* (p86) in 2009, but only deemed it fit for public eyes a year ago. The response to the direction in which Eidos Montreal had taken this storied series was, to put it mildly, mixed. The development team changed tack, but *Thief* is still a game with a muddled sense of self. Garrett has been reborn with Connor Kenway's freerunning, Nathan Drake's platforming and Bruce Wayne's environment scanning, so the end product only truly feels like a *Thief* game when you turn off as many of these additions as you can and look past those you can't. It is a game with a clear identity crisis. Thankfully, the mid-development volte-face just about pays off.

FromSoftware, however, knows exactly what it wants to do, and will stick to its guns even if the end doesn't always justify the means. Thankfully, *Dark Souls II* (p82) is no *Steel Battalion: Heavy Armor*. It's every bit the *Souls* sequel





we'd hoped for, despite those early promises of greater accessibility. FromSoftware claims that was a mistranslation, and given that we died over 300 times in our 50-hour trek across Drangleic, we're now inclined to believe it.

Updating a classic can't be easy. The weight of fan expectation rubs up against the desires of the development team, marketing's PR plan and the boardroom's eye on the balance sheet. It's the developers who can ignore some of those factors that have the greatest chance of success. FromSoftware would surely never take orders from Namco, and Jeff Minter takes orders from no one – *TxK* (p96) is his third official crack at a *Tempest* remake, and it happens to be his best yet. We're not saying the answer is to live on a remote Welsh farm surrounded by animals, but too many cooks very nearly spoiled *Thief*'s broth, and at least Minter's livestock let him get on with his work in peace.

Dark Souls II

Publisher Namco Bandai
Developer FromSoftware
Format 360, PC, PS3 (version tested)
Release Out now (US, JP), March 14 (EU)

We are among the first to set foot in Drangleic, and we are quite helpless. There are no wikis, forums or videos to guide us when we hit a wall; no fellow adventurers with whom to exchange whispered guidance; no messages on the ground from other travellers. It is a terrible, terrifying, wonderful feeling to be this alone. After our first fatal mistake, when the screen goes dark and we see the words 'You died' for the first time, the trophy popup says it all: welcome to *Dark Souls*.

That message proves to be telling. Everything in Drangleic is new, of course, but this world of endless blind corners is also familiar. The minute you set foot in Majula, a beautiful, sun-parched coastal settlement with a conspicuously placed bonfire, you know you're in this game's Firelink. And you know that at least one of the paths branching out from this central hub will lead to an area that you're not yet ready for, put there by FromSoftware with the sole purpose of making sure you know your place. And you'll instinctively attack every chest in the game before trying to open it.

As such, your first hours in *Dark Souls II* are about identifying, and adapting to, the subtle differences between it and its predecessor. Majula's blacksmith, for instance, doesn't carry an infinite number of the Titanite Shards you use to improve your gear. He has just ten, and upgrade materials remain scarce throughout the early part of the game. Indeed, most merchants' stocks are limited; you'll wish you could stock up on the Human Effigy – this game's Humanity equivalent, which now not only lets you summon help for boss battles but also restores a health bar whose capacity depletes after every successive death – but you can't.

The only item available in unlimited quantities from the outset is the Lifegem, a new healing item whose very existence caused concern among the *Souls* series' rabidly passionate community. Given out like candy in prerelease demos and the network beta, it's a rarer commodity in the final game: an uncommon drop and sold by merchants for 300 souls apiece. It's an essential tool early on, given that at the outset your Estus Flask can be used only once. That meagre limit can be raised by finding Estus Shards locked away in Drangleic's darkest corners, but our flask was good for just eight swigs by the end of the game, compared to the first game's 15. Healing options aren't just well balanced in terms of supply, but usage, too: Lifegems are quicker to use than your Estus, but they refill less of your health bar and take significantly longer to do so. It's just one more thing to consider in a combat system that's an endless procession of split-second life-or-death decisions and which often feels more RTS than RPG.

And it's in combat that we find the most instantly apparent changes. Even the lowest ranks of enemy are a good deal smarter now, and unless you're wielding a high-stability shield, blocking an attack won't stop them in their tracks, but simply delays the next hit of their combo. If you try to get a hit in, you'll either get hit first or hit each other simultaneously. The battle system itself is harder to exploit, too: the parry window has been tightened up, and if you try to lure a single enemy away from the group with your bow, you'll aggro the lot of them. The backstab is still invincible, but starts with a whack on the enemy's shoulder, during which you're still vulnerable – get hit and you're knocked out of the animation. And that also applies to walking through fog doors, thwarting our attempt to dash through a room of tough enemies on the run-up to a boss. On top of all of that is the threat of a diminished health bar if you die. It's going to take a lot more than a new healing item to mitigate such profound change.

It's in combat that we find the most apparent changes. Even the lowest ranks of enemy are a good deal smarter now



Little balancing acts exist elsewhere, thankfully. A chest in an early area holds a ring that reduces HP loss after death. At first, bosses drop generous amounts of souls, letting you level up and improve weapons and armour at a fair lick. In *Dark Souls*, only the forward roll had invincibility, but now the backward one does too. Unless our timing was flawless, there are even a few frames on the sideways version.

Most significantly of all, enemies eventually stop respawning. This serves two purposes: shutting down soul farming, and removing the frustration of making a mistake against a grunt you've already killed a dozen times on the well-travelled route from bonfire to boss. It's one of the few helping hands FromSoftware offers, acknowledging that you've learned all you need to from that group of enemies, and getting them out of your way. It doesn't make the game easier or less rewarding than its predecessor. After all, the elation at beating Ornstein and Smough had nothing to do with the times you slipped up against the Knights on the approach.

It does, however, undermine Drangleic's sense of place. Lordran was a consistent, coherent space, its enemy placements forever fixed, its individual areas looping back on themselves and each other. We could guide you from the top of Anor Londo to the bottom of Tomb Of The Giants turn by turn, and tell you exactly what you'd face along the way. For all that you'll welcome despawning enemies when struggling against a Drangleic boss, it's a different matter when you return later on and find that a place that was once teeming with Undead is now a ghost town.

Worse still is the ability to fast travel between bonfires you've visited from the very start of the game, which has had precisely the effect on Drangleic's design that we feared. Each of the paths branching out from Majula will lead to an area that flows into another, and possibly another, but eventually you'll reach a dead end and a bonfire from which to warp out. Bonfires are more

ABOVE Enemies hit hard, but the frequency of bonfires in the early part of the game gives ample opportunity to improve weapons and armour or level up. By the final credits, our greatsword could dish out over 600 damage per hit.



LEFT Hold the left stick in a different direction while locked on and you'll swing your blade off-target. It feels awkward at first, but with practice helps you dispatch groups while keeping an eye on the principal threat

BELOW *Dark Souls*' Bottomless Box was an unwieldy thing, but now surplus gear can be disposed of at any bonfire with a button press. You can also use items without leaving the inventory screen



ABOVE The Emerald Herald, who you visit to level up, is the closest thing to a guide, occasionally offering vague advice on where to go. But clicking through stock dialogue to get to the level-up menu soon grows tiresome



generously placed, and for the first half of the game you'll find one almost immediately after killing each boss. Given that you no longer level up at bonfires, but instead by talking to a Majula NPC, the first thing you do when you set foot in a new area is to fast travel out of it to spend your souls. Only later in the game does FromSoftware start making you tiptoe gingerly through a new area, inching round corners with your shield up, terrified of losing thousands of souls as you seek the sanctuary of a sword embedded in a pile of ash.

Yet fast travel brings its own benefits. Abandoning the need for a coherent flow – the way Undead Burg so naturally became the Parish, the way The Depths so logically segued into Blighttown – lets the vivid imagination of the level designers run free. The result is a game of remarkable visual variety, one that takes you from sprawling forestry to a claustrophobic crumbling prison, and from a murky network of caverns to an enormous Gothic castle surrounded by a lake of fire. It may not cohere as elegantly as Lordran, but Drangleic is more diverse, more beautiful and a good deal bigger. By the time the end credits had rolled, there were almost 30 areas on our travel map.

That doesn't tell the whole story, either. Just as you're starting to feel that the end is in sight, it transpires that FromSoftware has other ideas. The difficulty ratchets up yet another notch, the world design team sends you to greater heights and new depths, and you realise that the single greatest way in which *Dark Souls II* differs from its predecessor is that, rather than tailing off towards the end, it just keeps getting better. This late-game rug-pull pivots around a single moment in which not a sword is swung nor a word is spoken. It's a remarkable scene that serves to



LOCKSTONED IMMACULATE
FromSotware makes fine use of fast travel with environmental puzzling that, at times, is *Metroid*-like in structure. Killing the game's first major boss, for instance, yields a key that unlocks like-coloured doors in the area you've just cleared out. The concept stretches across regions via Pharros Lockstones, single-use items found in the environment and sold by merchants that you insert into open-mouthed faces etched into Drangleic's walls. Some reveal illusory walls, leading to rooms full of loot, and others give early access to bonfires. The device's best use, however, comes in one dark area, where an enormous torch rises high into the sky. It lights the path but also keeps the area's hardest enemies, which are scared of the light, confined to the shadows and out of your way.

The Pyromancer was *Dark Souls*' easiest starting class, but there's no equivalent here; we didn't even find a Flame until around halfway through. Sorcery's been nerfed, too, with a hefty stamina cost for every spell cast

remind you what FromSoftware does better than any studio in the world – finding beauty in the darkness and majesty in the grotesque.

The first playthrough is only the beginning, of course. Finish the final boss and you're not immediately dropped into New Game Plus, but sent back to Majula, free to explore and mop up before starting your second journey. And when you do, FromSoftware gives you all of five seconds before bringing you back down to Earth with a bump. Let's just say that a new game is about far more than bigger enemy health bars and higher damage output. Good luck – and try running away.

What, then, of the infamous claim that *Dark Souls II* would be more accessible? Well, friendlier bonfire placement helps and, after a couple of spikes, the difficulty curve is a good deal smoother early on. The ability to respec your build using a rare item will help those who unwittingly level themselves into a corner. Yet for all its little tweaks, *Dark Souls II* is, foremost, a game made for *Souls* players. It is a game that asks everything of you and gives so much back, keeping its cards close to its chest, and revealing them only to those prepared to die and die again. It is made to be played for hundreds, if not thousands, of hours as you try new builds, explore PVP and experiment with covenants, all the while slowly peeling back the layers of its lore. Some of its ideas work better than others, and Drangleic is no match for Lordran's intricate design, but *Dark Souls II* is, like its predecessors, brilliant, beautiful, and absolutely essential.

9

Post Script

Why the Souls games' supposed difficulty is a damaging myth

A death tally in excess of 300 might suggest otherwise, but *Dark Souls II* is not a difficult game. Nor was its predecessor, nor the PS3-exclusive *Demon's Souls*. Yes, this is a game in which you die an awful lot, where tutorials are scant, and mistakes are both inevitable and severely punished. But the *Souls* games' difficulty level has been overstated.

It's odd, given that we tend to overlook difficulty in many other kinds of game. Spin out on the final corner in a racer and you'll lose the lead, forcing you to repeat the previous five or ten minutes of play. You realise your mistake immediately – that you took the wrong line, or were going too fast – and restart, better prepared for the challenge ahead than you were last time around. The parallels are obvious.

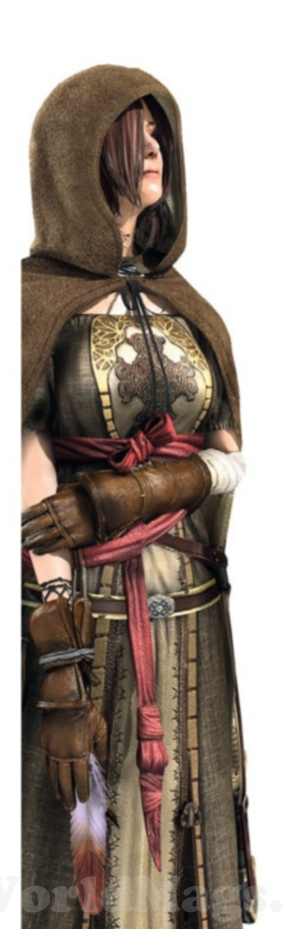
In fact, mastering *Dark Souls* is a lot like learning to drive a car. Both have core mechanics – accelerate, brake and shift gear, or attack, block and evasive roll – that are easily learned and quickly become muscle memory. The hard part comes in applying those skills in a world full of other people, requiring a mixture of awareness and anticipation, and an ability to predict what they're going to do next, whether it's the axe-wielding Hollow around the corner or the SUV in the adjacent lane. The same applies to fighting games: you can know all the 20-hit combos and have the frame data committed to memory, but you're all but certain to lose unless you pay heed to what your opponent is doing.

That's an appropriate comparison, because *Dark Souls II* is, in many ways, the purest fighting game. With no elaborate combo strings, there's none of the barrier that prevents new *Street Fighter* players, for example, from taking on the world's best. Whether facing off against *Dark Souls II*'s lowest-ranked grunt or the final boss, all the tools you need are a button press away.

Furthermore, the *Souls* series gives players a spread of options like few other games. Ryu will always be Ryu, but if you're struggling against a boss in Drangleic, Lordran or Boletaria, a different approach can be adopted with just a few menu screens. You can switch to a spear and attack with your shield up, get out a halberd and give yourself greater range, or whip out a greatsword to maximise your damage output. If you're struggling at close quarters, you can fight from range with sorcery or pyromancy, or put on heavy armour to mitigate the impact of mistakes. On your travels, you'll amass all kinds of items, and chances are the answer to your struggle is waiting in the inventory screen.

Dark Souls II gives you even more options, in fact, with the new ability to respec your character using the Soul Vessel item. It's a rare find – we had just three of them by the end – but it's a key change, especially bearing in mind how many players abandoned their first

On your travels, you'll amass all kinds of items, and chances are the answer to your struggle is waiting in the inventory screen



Dark Souls save after realising they'd raised the wrong stats at the wrong times and levelled themselves into a corner. You're never forced to respec, but you'll be tempted to, especially during one mid-game run of areas that is seemingly designed to mock those who said the first game's Resistance stat was pointless. We resisted, but did restyle ourselves as a hybrid Strength and Intelligence character before embarking on New Game Plus, which is where *Dark Souls II* really gets hard.

And this freedom affords such flexibility that you can make the game harder, if you so choose. If *Dark Souls* really was the hardest game on the market, why would so many players complete the Soul Level 1 run, which involves starting out as a Pyromancer and never levelling up? Why is YouTube full of playthroughs of characters wearing only a loincloth, or completing the game without resting at a single bonfire? How is it possible that the 100 per cent boss speedrun world record stands at an hour and 21 minutes? It's because, in its vanilla form, *Dark Souls* isn't hard.

What it is, however, is impenetrable. Tutorials explain the battle mechanics, but not how to battle, which is a bit like giving you a driving licence after your third lesson. You're told nothing about how to manage your Stamina meter, which governs how much you can attack, block, dodge and run, making it the game's most precious resource. There are no audiologs, either, so piecing together *Dark Souls*' opaque lore means poring over item descriptions, reading Reddit posts, and watching YouTube videos, and even then you suspect you're some way from the real story. FromSoftware seemingly takes no greater pleasure than dropping the player in a sprawling world and letting them feel their way through it with the bare minimum of help. Early on in *Dark Souls II*, one NPC gives you the key to a Majula house, which he says contains a map of Drangleic. Your heart only leaves your mouth when you go there and find nothing of the sort: it's just one of many ways in which this game playfully pokes the seasoned *Souls* player. Of course there's no map. This is *Dark Souls*.

It's become something of a badge of honour, this delight in the opaque. The *Souls* games are positioned as an antidote to the modern game design consensus, to big-budget games whose makers' obsession with keeping the disc in the tray means games have never been so fatuous, so facile. And there's merit to that. But there's a big difference between hardcore and just plain hard. *Candy Crush Saga* is every bit as punishing as this, yet it is played by tens of millions every day. Until the conversation around *Dark Souls* shifts focus to its true strengths, it will forever remain in its niche, starved of the wider recognition it so deserves. ■

Thief

Late on in *Thief*'s campaign, we find ourselves escaping a burning, building-lined bridge. It's a well-directed sequence that shows off both the game's beautifully rendered world and its free-flowing *Assassin's Creed*-style parkour. Halfway across, however, we must squeeze through a tight gap between fallen masonry, lifting a beam out of the way as we trace a gentle S-bend through the rubble. It's there to mask the game loading the next area, of course, and it would be entirely inoffensive if it wasn't for the fact that we've seen the QTE that powers it more than 20 times already.

This flagrant reuse of the same sequence over and over again to hide loading is indicative of a wider malaise permeating *Thief*'s shadowy world. While Eidos Montreal has achieved much with its reboot, moments such as this suggest it could have used still more development time, despite being years in the making.

More aggressive editing wouldn't have gone amiss, either. The game's thirdperson climbing sections, vestigial remnants of a prototyping stage clearly in thrall to *Uncharted*, disrupt your immersion while offering no clear justification for the forced change in perspective. Certainly none of them require any greater navigational awareness. The decision to leave them in, especially considering that the more challenging free-running moments never threaten an out-of-body experience, smacks of a job rushed towards the end. As do the regular NPC hiccups, which see some characters turning around 270 degrees to face the corner they're attempting to negotiate, spinning on the spot, or striding confidently into the wall blocking their path. One poor soul is doomed to repeatedly try to smoke his hand in the absence of any cigarettes.

But despite a manifest lack of polish, *Thief* is nevertheless a striking-looking game and one that succeeds in capturing the spirit of its predecessors, with just one small caveat: you'll need to disable Focus, Eidos Montreal's headline feature. This highlights useful elements in your environment, be it ladders or ropes to climb, traps waiting to be sprung, or treasure left about the place by the careless denizens of The City. Augmented vision modes might be de rigueur, but in a game all about reading your environment, the ability to instantly see where everything is only undermines.

Thankfully, Eidos Montreal has made *Thief* highly customisable. Disable Focus and the game reveals itself to be worthy of the series' name, but go further and play on the hardest difficulty, which makes civilian knockouts a failstate, and *Thief* becomes a moreish, slow-burning exercise in expertly delivered tension. Guards and civilians are alerted by all manner of things, including noise, unconscious comrades, extinguished flames or even something generally amiss, such as an open cupboard or safe door, making clearing out every room a self-contained puzzle. But you can use the environment to your advantage, too: naked flames can be extinguished with water arrows or your fingers, while some electric lights have switches nearby. Bottles and other items can be thrown to create a distraction, while carpets and grass provide a quieter surface across which to move quickly. It feels just how *Thief* should.

Publisher Square Enix
Developer Eidos Montreal
Format 360, PC, PS3, PS4, Xbox One
Release Out now

While main missions are enjoyable, the freedom to discover things for yourself proves even more alluring



While Focus is overbearing, Eidos Montreal's other additions are more welcome. The new Swoop move allows you to move rapidly and silently across a short distance – just so long as you're not in water, on a bed of glass or near an easily disturbed caged dog or bird. It's an empowering way of getting close to a mark in order to pickpocket them and then retreat, or to move from shadow to shadow efficiently.

The faithful Blackjack has received an upgrade, too, augmented with grapnel-like spikes that can be used to scale high walls. It still serves as a non-lethal way to incapacitate enemies, as well as a last line of defence against sword-wielding guards. It's usually possible to run away if you do get spotted, but judicious use of the dodge and careful circling makes taking out one or two guards possible. Any more than that, however, and you're definitely pushing your luck.

The main missions take in all manner of locations, from grubby meat-packing factories to plush brothels and grand houses. Trips to excavated ruins and an asylum also provide some supernatural encounters, the former introducing a vicious creature that's afraid of the light, inverting every instinct you've learned up until that point. While there's never a sequence as nerve-jangling as *Thief: Deadly Shadows*' Shalebridge Cradle mission, *Thief* has its share of scary moments.

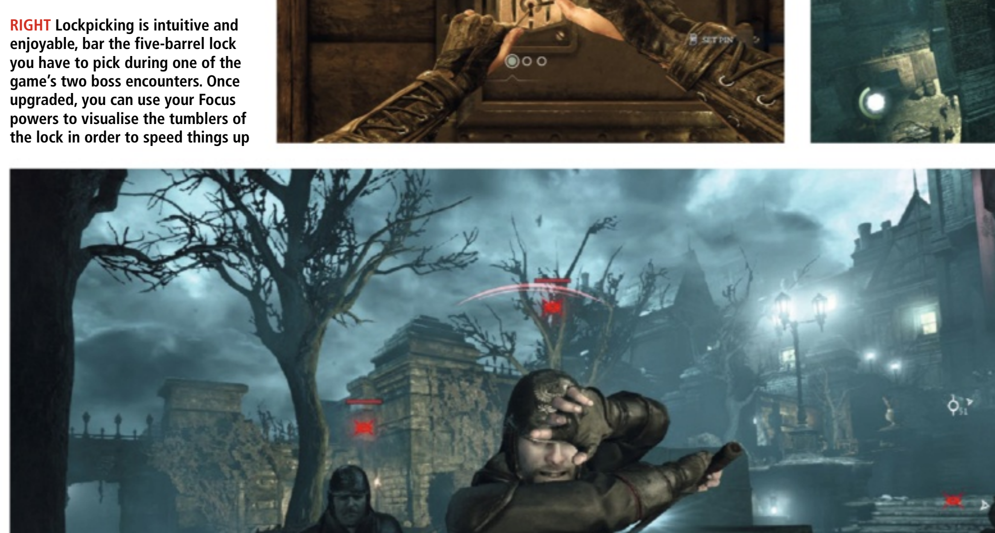
But Garrett's extended tool- and moveset are best showcased in the urban hub that links the mission levels together. Split into several districts (gated by doorways, windows and a few more of those beam-lifting QTEs), it's an environ as thickly laden with atmosphere as it is dirt. Twisting, torch-lit cobbled streets wind around rickety buildings, the roads populated with beggars, drunks, prostitutes and guards. Eavesdropping on people's conversations might reveal the location of some valuable loot, and there are a number of characters here who will give you client missions, plus shady dealers who sell and upgrade equipment. While the main missions are enjoyable, the freedom to experiment, improvise and discover things for yourself proves even more alluring.

Thief is far from the disaster that many feared it would be, and fans who take the time to customise their settings ahead of their first playthrough will find a rewarding world here to pick clean. Nevertheless, it's still difficult to shake the feeling that, for all his dexterity, Garrett has stumbled in his attempt to gain access to a new generation. **7**





RIGHT Lockpicking is intuitive and enjoyable, bar the five-barrel lock you have to pick during one of the game's two boss encounters. Once upgraded, you can use your Focus powers to visualise the tumblers of the lock in order to speed things up



ABOVE The game's perfunctory thirdperson climbing sections are entirely linear – even limiting your control over the camera – and add nothing. Thankfully, they're rare, and most of the time you'll scale buildings in firstperson view.
LEFT Once guards are alerted, they'll continue looking for you for quite some time. On the hardest base difficulty level, they take a great deal of pummelling to fell, so picking your battles is essential

BELOW The realtime lighting is a constant joy, not only adding atmosphere but helping you to keep track of enemy movements. A light meter in the bottom-left corner of the screen lets you know exactly how visible you are



Concerns that Focus mode undermines much of what defines *Thief* appear to have been secondary to keeping in step with modern games' vision modes

Post Script

Why is Square Enix dishonouring the essence of so many series?

Since its acquisition of Eidos in 2009, Square Enix has become the custodian of several cherished series. So it has gone about rebooting and revising them in recent years, with varying degrees of success. Each new game superficially appears to understand its lineage, but close inspection reveals the results of misjudged tampering.

At least Eidos Montreal could share the blame for *Deus Ex: Human Revolution*'s boss battles with a third party, Grip Entertainment, but these bottlenecks were totally out of keeping with the nuanced, choice-based gameplay of the rest of the game. Players who had spent five or six hours turning Adam Jensen into a stealthy hacking expert suddenly found themselves fighting a human tank with only a few pillars to cower behind. These fights were reworked in the *Director's Cut*, but that they made it in suggests a lack of quality control that pervades the publisher's output.

IO had no semblance of a scapegoat for *Hitman: Absolution*. In attempting to refresh its series by drawing on popular stealth contemporaries, it only diluted it – X-ray Instinct vision, for example, encouraged quick thinking over planning – eroding some of *Hitman*'s personality for the sake of broader appeal. Last year's Crystal Dynamics-developed *Tomb Raider* reboot, meanwhile, managed to retain its own identity thanks to its heroine, even if it was built on a list of popular ideas. The obvious touchstone is *Uncharted*, of course, but others sneak in, such as a *Batman*-style Detective mode.

Thief, like *Human Revolution*, was developed by Eidos Montreal, although it was handled by a separate team, and includes examples of all the above misdemeanours: a vision-enhancing Focus mode, an ill-advised boss fight or two, and jarring thirdperson sections that seek a cut of Nathan Drake and Edward Kenway's popularity.

Not that *Thief*, *Deus Ex: Human Revolution*, *Hitman: Absolution* and *Tomb Raider* are bad games. None abandon their series' tenets to such an extent that they're disfigured beyond recognition to fans. Some even improve on elements of their forebears – *Human Revolution*'s engaging yarn, for instance, or *Thief*'s take on The City. But this throttling of innovation in favour of aping the designs of other developers' best-selling games is a strategy that fundamentally misunderstands what made these series so special in the first place, and only alienates the committed fans on whom sales performance relies.

Risk aversion is hardly uncommon, but it's especially prevalent at Square Enix, and it's easy to picture the publisher's ailing fiscal fortunes as the justification. That suspicion is leant weight by Eidos Montreal founder and former general manager **Stephane D'Astous**, who resigned in July last year.

Prefacing his resignation note, he nodded to 2012's financial shortcomings. He then said: "We [HQ London and GM Eidos Montreal] have had growing and divergent opinions on what needed to be done to correct the situation. The lack of leadership, lack of courage and the lack of communication were so evident that I wasn't able to conduct my job correctly. I realised that our differences were irreconcilable, and that the best decision was unfortunately to part ways."

Square Enix boasts a portfolio of some of the world's most ardently followed series, yet apparently lacks the conviction needed to evolve games without borrowing from others. *Deus Ex: Human Revolution* should have provided ample proof that there are still players willing to invest time and effort in complex game systems, and who appreciate mechanics that don't fall in with the fashions of the moment. Instead, the publisher has continued to play it safe in an attempt to make every release a world-beating fiscal success. Now it finds itself with a growing number of series that are playing catch-up with the genre leaders they once inspired. ■

Yoshi's New Island

Publisher Nintendo
Developer Arzest
Format 3DS
Release March 14

So this is what wiped out the dinosaurs. Oh, we're sure Nintendo won't be sending Mario's helium-voiced steeds to the glue factory just yet, but *Yoshi's New Island* represents an extinction-level event for the spirit of a classic. It's pitched as a sequel to 1995's *Super Mario World 2: Yoshi's Island*, a platformer with the manic creative energy of a sketch, and yet developer Arzest's lethargic throwback contrives to be as disposable as a child's abandoned napkin scribble.

From the off, Arzest shows a willingness to reuse anything from the original with the barest minimum of adaptation or reinvention, packing the game with familiar enemies, backdrops, ideas, furniture and collectibles. Meanwhile, the story, such as it is, falls closer to ripoff than homage: Kamek tries once again to become an adoptive parent mid-stork flight, but only manages to make off with Baby Luigi, leaving infant Mario in the tender care of the Yoshi tribe.

In the right hands, these elements might engender fond nostalgia. It's a remarkable feat of engineering to take parts so beloved and construct something that feels so wrong, like being asked to strip down and reassemble a Bugatti Veyron and ending up with a tuk-tuk that falls to pieces when you turn the key.

Take the controls, once kinetic and honed. Now Yoshi wallows about, taking several paces to break into a syrupy facsimile of his dash. His jump is comparatively sprightlier, but still less bounding than we'd expect. Even aiming egg throws is slow, the reticle gliding up the screen (two alternative aiming modes, Hasty and Gyroscopic, exist, but the former is faster only in that eggs are launched when you let go of X, and the latter is borderline unusable). Nothing feels responsive, stifling any locomotive joy these rote worlds could provide.

That's betrayal enough of its proud ancestor, but it could have been a deliberate effort to encourage a more relaxed, exploratory playstyle. Inexplicably, however, Arzest keeps showing you collectibles only to whip them away at speeds its controls defy you to match. This seems to be an attempt to attract replays, asking you to memorise layouts to nab those elusive flowers and red coins, but it would take far more than a chalk tick on the end-of-level scoreboard and the chance of gold medals to convince us to wrestle our way through these bland, characterless courses more than once.

We're not just talking art style, either, although this suffers from slavish adherence to the specifics of *Yoshi's Island* – recreating its dank castles with corrugated-card backdrops, say – while never quite capturing the vivid energy that made its source material so striking. After *Tearaway*'s tactile handicraft, these anodyne pencils and heavy-handed, faux-painterly swirls feel twee. But what irks is a deeper problem: in all but rare instances, levels simply feel like loose collections of platforms strung together, with a frustrating number of lethal drops and instakill lava pits filling the gaps. The enemies that populate the interstitial spaces are seldom a threat, but when they are it's because they're cheaply placed to induce a tumble and a restart. Anachronistic checkpointing only exacerbates the difficulty spikes: we died during one boss (knocked into lava, of course) only to have to do the entire preceding section again.

> It's a truly remarkable feat of engineering to take parts so beloved and construct something that feels so wrong

There are precious few new ideas to spin along whole worlds of this kind of level design, and fewer still not stretched too thin by overuse, but Arzest doesn't help itself by taking the exploratory tools that were Yoshi's vehicle transformations and turning them into boring gyroscope-controlled minigames. We're not sure what's more frustrating: that resources have been funnelled away from graceful design to fund tacky gimmicks, or the more literal funnels in which the vast majority of these sections take place.

Just in case there was still doubt, pushing up the 3D slider makes it clear that Arzest isn't at home with the 3DS hardware, its stereoscopic implementation so poor that it hampers you. Objects are displayed on a limited number of quantised layers, the choices of exactly where made seemingly at random, fragmenting this resolutely 2D world. Some platforms are placed on the layer behind Yoshi's feet, leaving him floating awkwardly in front of them, while foregrounded items are distracting. One level has a ski lift carousel, which we tried to cross while avoiding the platforms clearly in the background. But we were being too clever: they were totally safe to land on, a clumsy layer shift explaining away how you can alight on something several feet into the screen with a forward jump.

As limp as *Yoshi's New Island*'s uses of 3DS are, they are as nothing to when it crashes up against its own heritage. Precision aiming is a core part of this series, with ricocheting eggs used to collect items that are hard to reach, but it's ruined here by the spotted projectiles not being tracked mere millimetres beyond the screen's boundaries. You can throw an egg at a line of coins, walk forward a few steps and see where the game stopped bothering to pick them up – and since the 3DS screen is just a few times Yoshi's height, you'll run into this often with objects placed above you. The laziness is only highlighted by the insipid sequences with humongous, scenery-destroying eggs (see 'Battery farming'), which span entire segments of level without issue.

No one part of *Yoshi's New Island* is ruinous by itself, but the sum is so much less than the 20-year-old parts from which it's cobbled together. No one deserves to be duped by the Crayola box art into expecting a true sequel to a childhood-gulping adventure, which is still counted among the most innovative 16bit games of the mid-'90s. Arzest has laid an egg here, but not of the golden variety.

4



BATTERY FARMING
Yoshi's New Island does little enough to justify the 'new' in its title, but what it does put on the table is a few scrambled egg types. Mega Eggdozers, made by ingesting screen-high Shy Guys, are tools of mass destruction, filling a meter that awards you lives if you smash enough stuff in one hit. Too often, however, filling that meter means being led by the hand to throw them in one 'correct' direction and then simply watching as they're shepherded about the screen. Steel versions, meanwhile, are rolling wrecking balls when thrown, but also make you less buoyant, anchoring you for slower-than-usual underwater treks. Worse, they can cause frame drops when unleashed.





ABOVE The game looks far better in screenshots than it does on 3DS's autostereoscopic screen, being both darker and more washed out in reality. While the best backdrops do a passable impression of Van Gogh's The Starry Night, the brushstroke effect's overuse blunts the wow factor

LEFT Boss fights once again see Kamek enlarging enemies (and you'll also battle him directly), but lack the ingenuity or humour of the past. None will blow your trousers off, relying as they do on the repetition of simple actions





ABOVE The vehicle minigames are on time limits, despite the clunky gyro controls. And while the helicopter is one of the freer ones, you can see the ceiling even in this crop, demonstrating just how little leeway you're given. LEFT Old ideas abound in *Yoshi's New Island*, these Chomp Rocks first seen in the original's World 1-1 (Make Eggs, Throw Eggs). The new music is just horrid, though, seemingly intended to liquidise the adult brain via the ears. Like almost everything else, themes are excessively overused



Earth Defense Force 2025

The cliché says *Earth Defense Force* is a B-game series, modest in its budget and cack-handed in its execution, but with a knowing wink and a sense of fun for those taking it on its own terms. It's the simplest of modern shooters, but has a scale that's unmatched by any other game. Giant wasps swarm in numbers that blot out the sun, colossal spiders flood city streets, bosses fill the horizon, and walking robots tower hundreds of feet overhead.

Calling it a B-game forgives a lot that's unforgivable in contemporary design. It forgives the framerate drops. It forgives the repeating textures and the tatty polygons. It forgives the same old levels you've already played in *EDF 2017*, and the same old enemies introduced in the same old order.

There's the templated beach, ravine and city maps; the modestly retextured giant ants, spiders, drones and machines; the same saucers in the sky and the same mothership with the same attacks. But where *2025* tries something new, it's invariably both good and bad. The physics powering the spectacular building destruction will leave you ragdolling down a hill for half a minute or more when it goes wrong. The enemy additions are equally mixed: Shield Bearer robots force you to change your strategy, but Retiarius spiders can impossibly lasso you from halfway across the map without warning.

And the new class system offers variety, but the Wing Diver is too weak, the Air Raider too limited and the Fencer too slow to be used alone. They're all different flavours of support class built for online play, but the secondary classes you'll have ignored and left unlevelled in the campaign make a poor case for selection when you play with friends.

Online co-op was the final step for *EDF* to take after *2017* so thoroughly explored guns 'n' bugs, but even in the endgame *2017* never felt quite so mindless and exhausting. Its 50 levels are dwarfed by the 85 in *2025*, where ideas are repeated and the weapon droprate has been reduced to accommodate the length and intended online replays.

Where *2017* offered surprising new guns every few levels, *2025* doles them out steadily, almost as if it were afraid of running out. It never does. After 30 or 40 levels, you're into the realm of fire-and-forget homing missiles and indiscriminate bullet hoses. *EDF* was never about careful aiming or strategic cover or any of the other things that drive modern shooters, though – it's about superior firepower earned through RPG grind, but *2025* has made the happy grind gruelling.

5

Earth Defense Force 2025 **simply ignores Vicious Cycle's middling** ***Insect Armageddon*** **spinoff and slots into the series right after** ***2017*****. Despite the eight-year gap between events, it's as much a remake as it is a sequel**

Publisher D3
Developer Sandlot
Format 360, PS3
Release Out now



MANHUNT
EDF 2025's new cooperative multiplayer mode is joined by an adversarial mode that places two players on a campaign-sized map and sends them off to battle without guidance of any kind. With aiming already of little consequence, this mode becomes about who can find who first. It turns *EDF* into a kind of stealth game and is a laughable piece of design – almost anti-design in its absence of thought – but is, by accident, utterly thrilling.



Strike Vector

Four-man French indie Ragequit bills its debut multiplayer twitch shooter as a "brutal" aerial combat game, and it isn't messing around. In the early hours of this modern spin on *Quake*'s legacy, it feels like we spend more time between lives than we do in the air. Our Vector spawns at screen-blurring speed on direct collision courses with walls, dashing us cruelly to bits before we can get our bearings. We get vaporised by distant pixel-sized enemies cloaked in the cloying fog that permeates every map. We pump rounds into a mark only to have a stray piece of shrapnel score the kill – no points for trying here.

With just nine slides and a free-flight mode to prepare you, *Strike Vector*'s learning curve isn't steep so much as abyssal. You can sink 15 minutes into a match and learn nothing of worth. What little you are taught is via slaps on the wrist: the first time you loose off a swarm missile that promptly seeks out a teammate is a painful lesson in *Strike Vector*'s disdain for those who fail to grasp its inscrutable systems. It's an attractive game, the bold colour palettes expertly chosen, but it's austere. And many won't just ricochet off its towering walls – they'll plummet headlong into them and detonate.

Publisher/developer Ragequit Corporation
Format PC
Release Out now



DOG THE BOUNTY HUNTER
Strike Vector has little time for the massmarket FPS, but still derives one of its best modes from it. Dominion is a floating equivalent of *Battlefield*'s Conquest, with three capture points you must hover near to secure at the cost of revealing your location to all. Bounty Hunter also draws attention to players, with cash awarded for kills and bright circles around valuable craft. But this makes you almost too visible, and an easy target for homing missiles.

But around the four-hour mark, after rebinding our bugged W key and gaining our forward boost, a gestalt shift occurred. Gone was the sense of flying a videogame camera instead of a craft; we'd learned to stop fighting the handling and love its disregard for physics. Gone too was the momentary but deadly confusion between the flight and hover controls, which use the same keys for very different actions.

That sense of overcoming insurmountable odds is potent and high-level play is giddying, full of dazzling shootouts and whippet turns. You have mastered a broken machine and can begin to imprint your style on it. Teeth-grinding frustration gives way to teeth-clenching manoeuvres, and the warm glow of showing off a hard-earned skillset. And it's here that you'll appreciate the unlock system, which reserves only cosmetic upgrades for progression.

Toughing out a few obtuse design wrinkles can be rewarding, then, but much here is simply broken. Lag is the biggest problem, since tiny margins for error render even small delays and positional corrections fatal, but servers are underpopulated, and connection drops and server-sorting bugs hampered the launch weeks. There's a great twitch game beneath this hostile exterior, but Ragequit can't afford to test players' endurance on so many levels if its niche shooter is to thrive.

7

***Strike Vector* should never have to worry over complaints of being too accessible. The placement of some boost rings is so awkward that most of the path beyond is wall, with only superior reflexes able to avoid a crash**



Strider

Well, that's one way to solve a problem. Our time with an in-development build of Double Helix's reboot (see **E**261) raised concerns over how much damage Strider Hiryu took. That's still the case: our hero is fast, flighty and powerful, but he's a glass cannon. Double Helix's solution? Health pickups are everywhere.

At the start anyway, when a slight early moveset means Hiryu needs all the help he can get. Things soon change, however, the designers ensuring you're rarely more than half an hour from a new ability. As Hiryu becomes stronger, so do his foes. By the time you're fully tooled up, the drones that spent the opening hour politely firing weedy machine guns at you are riddling you with lasers instead. And while standard cyborg grunts are easily dispatched – the butter to your Cypher light sword's knife – right up to the end of the game, some carry shields that can only be destroyed with a charged attack.

Those shields will later change colour, inviting you to switch between your four Cypher powers using the D-pad, with Hiryu's scarf and sword trail shifting hue accordingly. Your default red slash reflects bullets when powered up, orange sets enemies on fire, blue freezes them in place, and purple sends out a boomerang projectile. Each also grants you access to new areas – the blue Cypher, say, freezing a rapidly revolving door in place.

Combat's not all melee, either. Option powers are your special moves, summoning help to attack everything onscreen. Most useful is the Dipodal Saucer, a series of plates that orbit you, protecting you from missiles and loosed off as projectiles. It's a vital tool in the boss fights that punctuate the Metroidvania rhythm. There are screen-filling nods to the series' early days – robotic dragons and gorillas – but the fights against human enemies are delightfully pure battles between two movesets.

Games like this live or die on their pacing, on the rate at which new gear is doled out. Double Helix finds no small success here, while also ensuring that *Strider* respects its heritage. There are times when it leans too heavily on antiquity – checkpoints are erratically spaced, and you'll often respawn on the wrong side of an unskippable cutscene – but with this and *Killer Instinct*, Double Helix has positioned itself as a sort of anti-WayForward, seeing retro IP not as an excuse for chiptunes and pop culture gags, but a chance to update old games for modern fans. *Strider*, then, is a sensitive update for a series many thought would stay stuck in the past.

7

Publisher Capcom
Developer Double Helix
Format 360, PC, PS3, PS4, Xbox One
Release Out now



TALK IS CHEAP

The voice acting is cheerfully cheesy throughout – at least we hope that's the intent, given how much casual stereotyping is on display. Heavily accented Soviet-era propaganda is parped at Kazakh citizens over a city-wide PA system, while Hiryu's exaggerated Japanese accent could have been yanked straight out of an '80s Saturday morning cartoon. But the female AI that directs enemy operations is played rather straighter, and it's her you'll hear most frequently.



The Pooh sister boss battles are a highlight, especially later in the game when you'll face off against several of them at once. Their character designs are a clear nod to *Street Fighter* – here's Chun Li, for instance

TxK

Publisher/developer Llamasoft
Format Vita
Release Out now

Jeff Minter has made over 60 games in his 30 years as a developer, and yet it seems he's spent a career remaking Dave Theurer's tube shooter *Tempest*. It's a template to which Minter appears unable to resist returning, refining its mechanics with each release to varying degrees of success. Some would cite 2007's polarising *Space Giraffe* as his crowning achievement; many more would consider 1994's *Tempest 2000* the pinnacle of Minter's back catalogue. Both may soon reconsider.

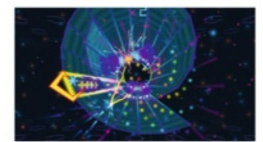
In fact, his gaudy neon aesthetic may well have found its perfect partner here. The vibrant colours Vita's screen produces make Llamasoft's iOS output look positively drab. The presentation is superbly crisp, those sharp edges never more apparent than at the end of a stage when the level explodes in a coruscating shower of technicolour triangles.

Broadly speaking, its systems remain the same. You traverse the outer edges of a series of geometric shapes, shooting enemies and collecting power-ups. A particle laser destroys enemies more quickly, while a jump ability allows you to leap up from the edge to escape any opponents that reach you before you can shoot them. Tap the screen to trigger a smart bomb, which can be used once per level. Tunnels carry you between stages, offering more points the closer you stay to the centre, while collecting four warp triangles unlocks a bonus stage.

While these calming changes in tempo make for a welcome breather, they can't compare to the dizzying, feverish arcade action of the main stages. Enemies come thicker, faster and stronger as you advance, with later levels bending, folding and unpacking themselves in increasingly unpredictable ways. You'll leap and release a hail of bullets to sweep a row of enemies from the rim like bugs from a windscreen, dodging projectiles by a whisker and grabbing power-ups that launch an AI assistant along the edges in the nick of time. There's little of the wilful obfuscation that made *Space Giraffe* so divisive, and though the action occasionally gets so hectic that you'll be killed by something you didn't quite spot, the visual and audio cues offer enough feedback between them that you'll know to blame yourself, rather than the game, for each death.

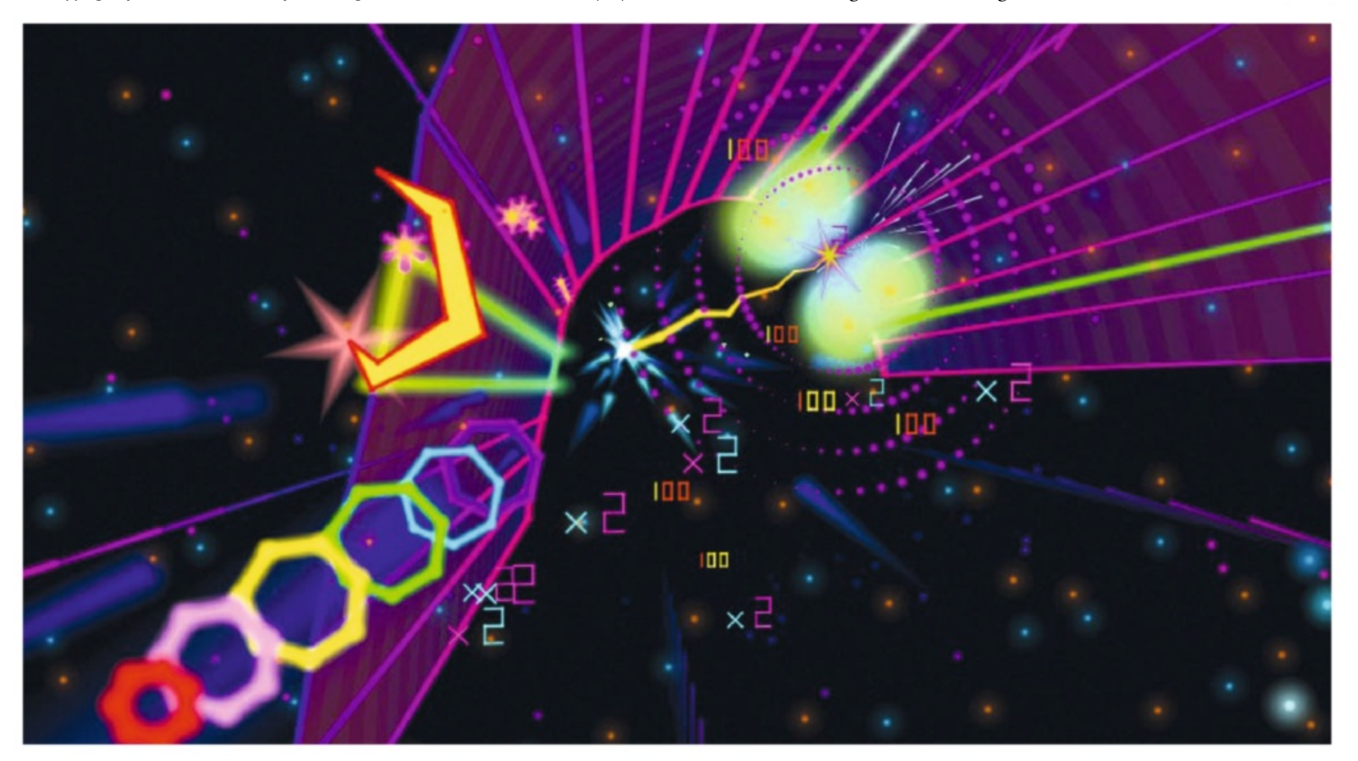
The result is hypnotic. This is twitch gaming at its finest, with beautifully tuned thumbstick controls and a pulsing soundtrack that only seems to focus the mind. Dynamic and wholly invigorating, *TxK* isn't just one of the best games on Vita, it might be the best game Minter's ever made.

9



RETRO STYLING

TxK's natural home isn't on a portable console in 2014. Rather, it's in a local arcade in the '80s. There, shrouded by a smoky fug, across a floor sticky with spilled beer, lies a cabinet scuffed through overuse, acned with burns from cigarette butts, silver coins lined up above its pockmarked sticks and buttons. Yet so transportive is *TxK* that within minutes you'll forget about Vita's tiny sticks and that its OLED display is no substitute for a proper vector monitor.



The Supertapper bomb awards a 2x score multiplier for each hostile it kills. It's a risk to allow enemies to encroach, but leaping up from a crowded rim and tapping as you descend is endlessly rewarding even without the bonus

create

Lifting the lid on the art, science and business of making games

This issue's People, Places, Things opens on p100 with influential engine programmer Corrinne Yu revealing how high-school coding projects changed her career trajectory and took her from NASA to the videogame industry. On p102, we travel the delicate and dicey Rainbow Road, *Mario Kart*'s technicolour test of handling skill, and explore the many shades it has adopted over two decades. The runt of *GoldenEye 007*'s arsenal, the Klobb, is stripped down and rebuilt on p104, as we attempt to find the value in an oft-derided firearm. *Joe Danger* and *No Man's Sky* creator Hello Games explains how it recovered from the Christmas floods in our Studio Profile on p106, even if it is making a whole universe in a box room. On p110, The Making Of... *Die Hard Trilogy* deals with another small team under pressure, this time at Probe Entertainment, but one that would go on to beat its well-funded internal competition, *Alien Trilogy*, in terms of critical acclaim. As always, our columnists round off the issue, with designer Tadhg Kelly (p114) cautioning against the bright lure of dark design practices for mobile and social games, and explaining why they tend to lead to fatalism. Clint Hocking (p116) counts the cost of games following the Hollywood blockbuster model, since predictability in budgeting will be all-important to that future. Finally, James Leach (p118) is afraid for women in games – specifically that we're too shy to make them flawed, engaging characters with different attributes to their many male counterparts.



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You'll never forget your first Rainbow Road. On p102, we drift around the series to discover why it's the pinnacle of every *Mario Kart*, and how it has become inextricably linked with the kart racing genre's king



People

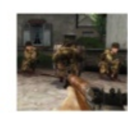
CORRINNE YU

The influential programmer who gave up nuclear physics for play

Yu began her videogame career after a stint at NASA, her early work including *Borderlands* and *Brothers In Arms* at Gearbox. In November 2013, she joined Naughty Dog and is now working on graphics coding for PS4

CV

URL www.twitter.com/Corrinne
Selected softography *Brothers In Arms* (2005), *Borderlands* (2011), *Halo 4* (2012)





When she was 12 years old, **Corrinne Yu** invented videogames. Her family, which had moved to California from Hong Kong when she was younger, was too poor to buy a computer. As such, when Steve Jobs and Steve Wozniak donated a number of Apple II computers to Yu's junior high school in the early '80s, she was presented with an opportunity. "My school looked at these computers like they were doorstops," she recalls. "It was a completely computer-illiterate place. They simply asked me whether I could make some use of them."

Yu, who was already deeply interested in electrical engineering, regularly dismantling electronic devices to experiment with modifying them, took up the offer and taught herself to program by creating a top-down American football game. "I didn't know that this was a videogame," she says. "I didn't know that anybody else was making this kind of thing. I just wrote things that I thought were interesting – games for my friends, my brothers and myself. For example, I played a great deal of Advanced Dungeons & Dragons. It made logical sense for me to write a dungeon crawler in 3D. It wasn't until much later that I found out other people and even companies also made games. It never occurred to me before then."

Although her first language is Cantonese, Yu soon became a fluent programmer. ("I still do all my arithmetic in Cantonese," she says. "The spoken language is a lot closer to mathematical notation than English.") Recognising her talent, the school began to pay her to write software. "I wrote word processors and programs to keep track of student grades," she says. "Anything that could be automated." She saved the income her work generated and, while still attending school, gathered enough to buy her own Apple II. "Apple's generosity changed the course of my life," she says.

Yu recalls immediately favouring programming over fiddling with electronics. "It's far more experimental," she says. "You can make changes and get feedback immediately." Despite this, she never considered her newfound talent as the basis for a career. "I thought that I should have a proper scientific career and contribute to science in a meaningful way," she says. "Programming didn't feel serious enough as a professional path." Her passion for science developed at a young age when she read an explanation of Einstein's theory of relativity in a Chinese scientific encyclopaedia. "The explanation was so clear even I could understand it as a child," she says. "This started off my fascination with math and physics."

As such, programming was a recreational pursuit for Yu, who hoped to become a nuclear physicist, actively pursuing the career. One of her high-school teachers also worked as a university professor. With his help, she was able to take mathematics classes at graduate level while still studying at school. At California State Polytechnic University, she was invited to an internship at a national laboratory to carry out nuclear physics experiments. But she continued to code, designing programs that could process the large amounts of data collected by the experiments.

Her exemplary work led to a key role on America's Space Shuttle Program at Rockwell International California. Yet even while creating tools to model shuttle behaviour, Yu maintained her interest in games. "I programmed games to get away from working on the space shuttle," she says. "It helped me to relax or stave off boredom." She kept her games to herself, showing them only to a few close friends. But word spread and soon enough she received a number of offers to work in the game industry. "I kept putting them off because it was just a personal hobby for me. But eventually I got pulled into making games and it ended up becoming my main career path."

> "I programmed games to get away from working on the space shuttle. It helped me relax"

Her choice to turn her back on these early research projects was a tough one. "I had to go through a lot of internal rationalisations to justify my decision. But now I feel that I've seen the impact games have had in the world, I don't feel conflicted any more. Millions of people enjoy playing things that I helped make. Perhaps it makes them happier people and they improve the world."

For Yu, who has created graphics engines for the likes of *Borderlands* and *Halo 4*, the technology is just a means to an end. "I want to make games that cause people to think. I want to inspire people to have a discussion about things they hadn't considered before. That's important for me as someone who started out wanting to make something in the world. How do I turn my talent into something that's more productive than simply making technological progress?"

She believes the act of increasing graphical fidelity in games is fundamentally tied to this broader goal. "If I can increase player agency by making things less static and more reactive to what the player does, then I am contributing to the narrative that games are trying to tell, and the emotional resonance," she says.

But this means it's crucial to find studios where she's viewed as more than a mathematics nerd. "One of the stereotypes is that all graphics programmers are a certain type; it's a stronger stereotype than gender," she says. "People see limitations when they think of graphical engineers. They don't think we have a creative inclination or talent. You're dismissed as a math nerd."

This frustration is one of the reasons that Yu joined Naughty Dog in 2013. The developer encourages all disciplines to be involved in the narrative process. "Two weeks ago, I was involved in a design discussion and narrative, despite the fact I am a programmer," Yu says. "I can contribute to the direct conversation itself: what do I want players to think about and feel? I can add to that. It's crucial to me to have that personal opportunity to make a difference."

Nevertheless, Yu continues with her personal game projects, for which she acts as designer, programmer and artist. "I need to keep making games in which I do everything myself," she says. "Right now, I'm making iOS games just for my friends and family. That's how I started: making boutique games for a tiny audience. I still do this. It's just a way for me to scratch an itch. I use these as sketchpads for ideas. I started a long time ago and I've never stopped, even as I made blockbuster games in my full-time job."

Despite achieving a great deal during the course of her career, from helping to launch space shuttles to helping to launch million-dollar game franchises, Yu still has aspirations. "I've started companies," she says. "I've influenced hardware architecture. I've shipped programming engines. I've made games that were critically acclaimed. It's not so much that I don't dream any more, but there is a very short amount of time between finding something I want to do and doing it. It's one of the reasons I've come to Naughty Dog. The next thing is what I want to do right here and right now in this company." ■



Places

RAINBOW ROAD

The deadly, beautiful ribbon that has entranced generations of racers

Super Mario Kart's taut Rainbow Road is short for the series, but its groups of Thwomps, 90-degree turns and obscured coins mean it's remembered for being a stern test of skill

From *Mario Kart* series
Developer/publisher Nintendo
Origin Japan
Debut 1992

Humans have long seen rainbows as signifiers of promise, be it a fabled pot of treasure to claim, the cessation of Biblical-scale ecological cleansing, a bridge to other worlds, or simply that the sun will be waiting when the rain finally clears. After 22 years and seven console games, the *Mario Kart* series carries its own implicit promises, not least of which is that there will always be at least one Rainbow Road to test you among its track list. The reward at this rainbow's end is a coveted one and, true to at least one legend, it's usually a shiny golden prize: the Special Cup.

In 1992's *Super Mario Kart*, Nintendo laid down Rainbow Road's fundamentals: a track that is both visual set-piece and ultimate challenge. From the earliest moments you put tyre on tarmac in Mario Circuit, the designers have begun to play with the idea of not hemming you onto the course and the critical path, but it isn't until Rainbow Road that you're suspended over black void without a single barrier and left at the fickle mercy of a jostling pack of racers and deadly Thwomps. Kicking off a lasting aesthetic legacy, meanwhile, the ground is mesmerising, a shimmering parade of technicolour that contrasts strongly against the sucking gulf of space beyond. SNES Mode 7 graphics offered a wondrous faux-3D perspective, too, but its limitations left this Rainbow Road pan flat, and the series' purest test of driving skill. It's short, taut, and unique among its peers for having no counterpart, which is also a fitting description for the game credited with sparking off the kart-racing genre.

But reinvention has proved key to the track's evergreen popularity, and everyone has a favourite version. A radical overhaul for *Mario Kart 64* brought a dash of stardust and neon, but more crucially the additional N64 processing power allowed the road to shift to semi-translucent and wending, stomach-churningly rising and falling through 3D space. Yet in a retrograde step, star barriers came plastered to every edge, all but eliminating the possibly of unforced falls. So early on, the track's reputation for extreme challenge threatened to spin out, even if vicious Chomps and lengthy turns provided some of the toothy handling requirements fans expected. It wouldn't last: from GBA's *Super Circuit* on, a sizeable portion of every track has been left open to treacherous falls into space, ensuring steady employment for Lakitu and his fishing rod.



Segments of *Mario Kart Wii*'s Rainbow Road ripple beneath you, which skilled players can use to chain together a run of stunts

Every Rainbow Road has its gimmicks, though, Nintendo exhibiting its usual flair for recycling settings but sustaining interest with one-shot twists. *Super Circuit*'s has a branching path, a thin strip of boost-pad-lined road a short hop away from the main artery to entice the unskilled and unlucky to their doom. *Double Dash*'s track siphons players up a giant suction tube, providing a moment of respite amid the growing chaos of shells, stars and Bullet Bills. *DS*'s Rainbow Road turns an often figurative rollercoaster into a thrill ride with a vertical loop and corkscrew, whereas *Wii*'s undulating ribbons play into its trick system, and its track also takes in a figure of eight where daredevils can dice with a reset for yet more stunt boosts. And while almost all Rainbow Roads are set in outer space, *Mario Kart 7*'s is the first where you can leave tyre tracks on lunar soil.

> There is little more infuriating than the Spiny Shell that finds you and flips you over the edge into space

At various points in its history, the road itself has become a mirror, a pearlescent strip with oil-slick rainbows rather than the hard light of *64*, but a Rainbow Road has always reflected the title in which it appears. GameCube's *Double Dash* infamously represented a shift towards item dominance, so falling stars become Starmen on impact with its track, while judiciously placed lumps mess with shell trajectories as recompense. *Wii*'s drive for mainstream appeal meant a control scheme designed to channel sympathetic racing leans, leaving its Rainbow Road to compensate for the imprecisions of early motion controls by widening sections of track to unprecedentedly generous proportions. *Mario Kart 7*, meanwhile, blends homage and wanderlust to electric effect, its final test bringing back the coins and Chomp threats of its earliest ancestors, yet lengthening out the course to one long lap that takes in more sights and racing styles than ever. The long-absent SNES Road even makes a comeback in the Retro Cup, after a sensitive makeover for 3D hardware.

Rainbow Road is a mirror, but it's also an amplifier, its unforgiving nature heightening the frustrations and triumphs that are the hallmarks of this series. There is little more infuriating than the Spiny Shell that finds you at an inopportune moment and flips you over the edge into space, adding track-reset insult to chart-position injury. But there is also no leap of faith more satisfying than the carefully planned one that lets you circumvent a portion of the road, with exploits across the years briefly transmogrifying Rainbow Road into something more akin to *Impossible Road*.

Twenty-two years on, Rainbow Road and *Mario Kart* are now eternally entwined. Even out of context, one immediately recalls its counterpart, a fact Nintendo knows and uses sparingly in its crossovers. Rainbow Road is the zenith of every *Mario Kart,* held aloft miles above its competition, and a fitting send-off to each incarnation. In 2007, *Mario Galaxy*'s designers found out space is a brilliant playground for Nintendo's greatest mascot, but even that was merely a rediscovery of the promise *Super Mario Kart* established when it dared to take us to infinity and back in 1992. ■



Things

GOLDENEYE 007'S KLOBB

This infamously overlooked peashooter contains a design secret

The Klobb has its roots in the Skorpion, a submachine gun with a folding stock that was made to perform better than a pistol but to fill a similar role

From *GoldenEye 007*
Publisher Nintendo
Developer Rare
Origin UK
Debut 1997

There is a certain type of videogame enthusiast for whom the virtual gun is far more than a mere prop. He waits with grim anticipation for the list of which real-world weapons will feature in the latest blockbuster shooter, quietly fist-pumping the air when his favourites make the grade. Most players, however, view the specifics of digital weapons with mild indifference: inside a game, they will quickly find their favourite means of punching crimson holes in their enemies, but it's unlikely they'll remember the weapon's name or finer details. *GoldenEye 007*'s Klobb is a towering exception the rule, a gun so notorious that it even has its own dedicated Facebook page, albeit with the rather disparaging title 'The Klobb is garbage in N64's *GoldenEye*'.

A submachine gun that's usually found lying about in the Russia-set stages, the noisy-yet-inaccurate weapon is widely considered to be the game's weakest, thanks to its slow rate of fire and capricious bullet spray. Despite its fictional name, the Klobb is accurately based on the Skorpion VZ/61 and was chosen by level designer Duncan Botwood. "The Skorpion is cheaply made in Czechoslovakia, I believe," says **Martin Hollis**, the game's producer and director. "There's some kind of Eastern European Mafia connection too. There are various flashy guns in the game, but the Klobb isn't one of them. It's not a B-list gun. You might say it's a K-list gun…"

Considering the weapon's reputation, very few characters in *GoldenEye 007*'s main story carry a Klobb; in fact, the team considered it too disadvantageous for even the lowliest grunts to wield. Hollis believes its infamy derives from the disparity between its bark and its bite. "There are a few scenarios in which it's possible to pick up two Klobbs and dual-wield them," he says. "When you do so, it makes an awesome sound and feels fantastic. You think to yourself, 'Oh, yeah! I'm the shit'. Until you actually try to shoot an enemy with the gun, that is, and realise that it's a bit like a noisy water pistol."

The maths behind the Klobb's flaws is straightforward. "It's both the weakness of the bullets [and] also the wide angle of fire," Hollis explains. Nevertheless, the gun's inclusion was important to the team, who viewed *GoldenEye*'s weapons not as mere props but as characters in and of themselves. "Many of the guns were highly tuned, but the Klobb was not one of them. It was an unloved character – the runt of the group."

"Many of the guns were highly tuned, but the Klobb was not one of them. It was an unloved character"



Klobbs are wildly inaccurate and their weak bullets are no match for agents in body armour. They can at least be dual-wielded

The Klobb's unusual name was a reaction to one of Nintendo's stipulations. Released in 1997 on N64, *GoldenEye 007* was one of the first games on the console to feature 3D firearms, most of which were modelled on real-world weapons such as the Walther PPK, the Kalashnikov AK-47 and the FN P90. But Nintendo, nervous that people would draw a line between arms manufacturers and its game, insisted the team fictionalise the guns' titles. "I was unhappy because doing so would decrease the realism," says Hollis. Nevertheless, the team replaced the real gun names with fictional ones – sometimes based on the initials of the development staff.

"We looked at the names of weapons on the market at the time," Hollis recalls. "We found that some letters of the alphabet are found more regularly in gun names than others. Some letters sound more aggressive and these ones tend to be picked by manufacturers when naming products."

Where possible, the team made up new designations incorporating these letters. "For example, we had the DD44 Dostovei, which was named after David Doak," Hollis says. "The tradition even carried into follow-up *Perfect Dark*… But the Klobb was named after Ken Lobb, who was our Nintendo-side producer and contact."

Despite the stats, this wasn't a dig at the Nintendo producer, with whom Hollis enjoyed working. "I do slightly regret naming such a poor weapon after him, since I am tremendously fond of the man. He is astonishingly enthusiastic about games, even after years of working in the industry. It's a little unfair that we named such a useless weapon after him. And for that I am sorry."

There is, however, one scenario in which the Klobb's weaknesses are transformed into strengths. One of the bonus multiplayer modes, dubbed License To Kill, sees each player burdened with a handicap of -100 points to their health. In this setup, even a graze from a bullet is usually lethal. "Dual-wielded Klobbs are astonishingly effective in License To Kill mode," Hollis says. "It's a fast-paced multiplayer game in which there's not a great deal of time to line up shots with any accuracy. It's more like 'spray and pray', and the Klobb is ideally suited to this style. You can enter a room and let loose with the weapons; the somewhat random spread of bullets makes the gun come into its own."

Seventeen years after *GoldenEye 007*'s debut, the virtual gun remains the central tool in the arsenal of both designer and player. The gun suits the 3D videogame like nothing else. With it, players have the ability to touch objects both near and far in a 3D world, extending their reach into the screen. But after years of striving to create the perfect virtual weapon, designers are beginning to understand the power of imperfection, not just in adding realism to a game, but also in adding valuable unpredictability, which can lead to memorable moments. It's a lesson the Klobb exemplified at the very start, and one whose value we're only now coming to appreciate. ■



STUDIO PROFILE

Hello Games

How the studio that embraced Danger is coping with the aftermath of a natural disaster

1 With its bright visuals and bracing challenge, *Joe Danger* harks back to the fondly remembered Sega and Nintendo games of the early and mid-'90s. 2 *Joe Danger Touch!* introduced a wealth of playable characters. 3 *Joe Danger 2: The Movie* featured a number of affectionate film parodies. 4 *No Man's Sky* uses procedural programming to build an entire universe. Fortunately, it was saved by cloud backups from being lost in the flood

Hello Games finished work ahead of the Christmas holiday "on an absolute high", says studio co-founder and MD **Sean Murray**. It had been a good few weeks for the tiny Guildford-based indie: *Joe Danger Infinity* for iOS was nearing completion, while its next big project, ambitious open-universe space adventure *No Man's Sky*, was the topic du jour following the overwhelmingly positive reaction to its reveal trailer during the Spike VGX awards show. "We broke up for Christmas [with] hugs and handshakes, and everyone left to go to spend time with their families," Murray explains.

Then disaster hit: torrential rain storms caused the River Wey to burst its banks and the studio was flooded. "It was Christmas Eve night and no one was here," says Murray. He received a text message suggesting there was a problem, although at the time he had no idea of its magnitude. Murray gathered everyone he could, calling upon friends for favours as well as the staff members who were able to return. Late on Christmas Eve, around 8pm, a small group found itself wading through ankle-deep water and attempting to salvage what it could. "It was bad, but not too bad. The water wasn't coming through the door, as most people tend to [picture], but through the walls and floors."

Naturally, anything electrical was affected ("PCs that were plugged in had shorted out and things were blowing up"), but at that stage the team of helpers was able to start moving everything out of harm's way, using desks to keep any surviving electronic equipment above water level. Yet worse was to come. "Apparently, an underground car park next door had been filling with water, and that burst, which meant we were flooded really quickly," says Murray. "It went to waist height in no time, and by that stage it was coming in [through] the doors and windows. It all happened really quickly, but it meant we were wiped out, pretty much. I'm laughing about it now, but it's a crappy thing to happen on Christmas Eve."

Cloud backups meant that the code for *No Man's Sky* was safe, but almost everything else had gone. Each member of the team had not only lost prior work – including game concepts – but individual belongings, including music, game consoles and paraphernalia of personal value. The following weeks were difficult ones for the studio, but it's just about back on its feet, even if its new home is cramped rather than compact, the



Joe Danger 2 **was more ambitious than the original, with an expanded multiplayer mode among its host of additions**

team having relocated to a small upstairs room. Co-founder **Ryan Doyle** laughs, "We're pretty much back to where we started: in a little box!"

That little box was Hello Games' first office, a single room with a glass front that turned the working environment into a greenhouse during the summer months. But even that marked a step up from its very first home: Murray's own dining room. Murray and Doyle, together with David Ream and artist Grant Duncan, began work on their first game idea there, having all left behind the security of jobs at Criterion and Sumo Digital without a concrete project to work on. "It was definitely going to be terrifying, but I felt a bit more comforted knowing who I was doing it with," Doyle explains. "We trusted each other and we knew what each other was capable of, so for me that definitely helped."

> "Everything was grey, po-faced, grimy and gory, and we wanted to make the polar opposite of that"

Doyle and Murray both joined Criterion within a few days of one another, at a time when the *Burnout* developer had around 30 staff and was sited within a residential area next to a pub and a block of flats. "We've been sat beside each other practically the whole time, so we're as close as two human beings can be," laughs Murray. With the success of the *Burnout* games, the studio duly expanded, and the two programmers witnessed the transition from front-row seats. "Within three or four years, it [grew to] 200 people, and the team I was on had 150 when I left," Murray remembers. "When I wanted to get into games, I just didn't picture that many people."

The duo spent a brief time at Kuju before electing to leave in 2008. It was undoubtedly a risky move and, at the time, somewhat unprecedented. Although many developers have left high-profile jobs to begin new startups in recent years, it was a different world at that time. "There was no App Store back then," Murray notes. "XBLA was starting to have titles that were doing well, but PSN only really had Sony titles, and what we wanted to do, no one [else] was doing. Now it's really commonplace. I think now [big studios] expect to be told, 'Oh, I'm off to make an iPhone game' every five minutes. But at the time, no one had done that at a place like EA."



Founded 2008
Employees 10
Key staff Sean Murray (co-founder, MD), David Ream (creative director), Grant Duncan (artist), Ryan Doyle (co-founder)
URL www.hellogames.org
Selected softography *Joe Danger, Joe Danger 2: The Movie, Joe Danger Touch!, Joe Danger Infinity*
Current projects *No Man's Sky*

The biggest problem for the fledgling studio wasn't the lack of floor space, but the absence of a game idea. "We knew the type of game we wanted to make," Murray says. "We wanted something like the games we'd grown up with – the Sega and Nintendo influence was pretty big for [all of] us, and nothing like that really existed at the time. Everything was grey and po-faced, grimy and gory, and we wanted to make the polar opposite of that. Of course, Nintendo was still doing that kind of thing, but not nearly as well as it used to. Anything that was bright, cheery and vibrant tended to lack depth. We wanted something that was outwardly very simple, but had deep gameplay."

Thus *Joe Danger* was conceived. The team quickly put together a demo and pitched it to the only publisher contact it knew. The idea was instantly rejected. Unperturbed, the studio took its prototype to Gamescom anyway. At the Leipzig conference, Murray and company organised several meetings with publishers, but in every case a deal meant compromising its original vision. Dozens of demos and mockups were made without success. One publisher thought the game would be a fine fit for Facebook, while another suggested a firstperson perspective. Worst of all was the suggestion that the crashes should be removed: *Joe Danger* without the danger.

Murray ended up selling his house to fund development of the game, and the team lived on a diet of ham, cheese, lettuce and tomato sandwiches as it raced its meagre budget to the ➜





Sci-fi exploration game *No Man's Sky* represents quite the departure for Hello Games, but it will bear some of the studio's hallmarks. Sean Murray says that the team hopes to match the immediacy, the responsiveness and the 60fps smoothness of *Joe Danger*

finish line. Hello Games eventually signed a timed-exclusivity deal with Sony, which allowed Murray to publicise the game via the official PlayStation blog, a crucial factor in raising its profile. The final stretch wasn't without its hitches, though: on the day *Joe Danger* was due for submission, Grant Duncan's final test revealed a game-breaking bug. Faced with the costly process of having Sony's testers figure out the source of the problem, the team began to burrow into the code. How apt that an errant mole was causing the issue.

In June 2010, *Joe Danger* finally debuted on the US PlayStation Store, and the team anxiously waited to see if its game was to become a hit. As the number of players on the leaderboards continued to climb, Doyle became convinced there was another bug, but the figures were genuine. Within 12 hours, Hello Games had made its money back.

A sequel, *Joe Danger 2: The Movie*, and an iOS spinoff, *Joe Danger Touch!*, followed, by which time the team of four had become eight and then ten, but not before it had bought itself a new home. The months spent fixing up the place were worth the effort: during our prior visit to the studio we saw a bright, happy working environment decorated in the kind of colours you'd naturally associate with the creators of *Joe Danger*. Indeed, the man himself used to greet visitors on their arrival – until, that is, nature intervened. The studio's Twitter account painted a tragicomic picture. "A life-size cardboard cutout of Joe Danger went floating past face down," it said. "Poor Joe. He's taking this the worst."

And with good reason. Joe was due to make his second smartphone appearance in *Joe Danger Infinity*. Meanwhile, *Joe Danger 2: The Movie* was supposed to be part of the Mac and Linux editions of the next Humble Bundle. Suddenly, releasing them represented quite the challenge for a company that now had no computers. "The next few weeks were really tough," Murray admits. "We had a pretty crazy week where we had to get furniture, network, electrics. We had to build about 20 different PCs, Macs and Linux machines, and get all our iOS stuff [together]."

With a little outside help, Hello Games was able to get *Infinity* ready for launch on the App Store by the second week of January. It was critically well received, but more importantly for the ailing studio, it was a commercial success. By the end of January, it had topped the App Store charts in 17 countries, in the process becoming the most successful *Joe Danger* game to date.

It was a boost that came at just the right time, but before the studio moved onwards, it had to move upwards. "We're actually now in a much smaller room upstairs from where we were," says Murray. And there are still problems with its new home. "The electrics are out, there's water on the floor, that sort of thing. We're hidden away in this very cramped little room where there's not really room for all of us."

> Murray jokes that one positive side effect is that the studio now has experience of fluid dynamics

Even so, Hello Games isn't far away from getting back to full-time development. "We're basically in the process of setting things right. We decided to stay in this office but get it redone, so hopefully within the next few weeks we'll properly have our office back. In the meantime, all that changes [about the way we work] is that everything is a bit more difficult for us."

While the physical damage from the flood was immediately evident, the psychological effect was more of a concern to Murray. "We were in [the office] during the Christmas period, on Christmas Eve and Christmas Day, and the thing I was most worried about throughout it all was that the team would be really disheartened, that it would affect morale, and people would find it hard to work."

But the process of everyone helping out may have brought an already close-knit group even closer together. "We're all pulling together," says Doyle. "Everyone's really focused and in a good mood, and totally excited to be back and working on a game we want to be making." Murray jokes that one positive side effect of the crisis is that the studio now has firsthand experience of fluid dynamics, though admits he's keen to stay away from direct references to the flood in *No Man's Sky*. "I don't want us to be known as the studio that flooded; I want us to be known as the studio that made *No Man's Sky*." So has the event galvanised the team to make an even better game? "Absolutely!"

The road to recovery has been a long one, but it looks like the toughest part of the journey is coming to an end. Murray suggests that when things return to normal, more staff may be hired to work on *No Man's Sky*, casually mentioning that he's been flooded with applications – "no pun intended". Any new recruits will need to be prepared to work hard, with Murray determined that "this is the time to really get our heads down".

As with the darkest moments of *Joe Danger*'s development, it's the studio's excitement for the game it's making that has helped it overcome such hardships. That sense of optimism ties into Murray's vision. "The emotion of the game for me," he says, "is [found in] that great expanse, the undiscovered country. I think that is key to this kind of experience, which is optimistic, which is cooperative, which in some ways is us against the universe." The parallels with Hello's current situation are inescapable.

Friends from other studios have described Hello's recent woes as a microcosm of indie development, with its wild lurches from triumph to disaster. "We announce *No Man's Sky* and then we're flooded and lose everything!" laughs Murray, displaying the sort of humour that has undoubtedly helped him and his team overcome a crisis that may have sunk others. "I was talking to the guys here and saying it feels like a moment in a film or a book, a classic 'hero's journey' moment, that down-but-not-out [narrative] arc. We've been beaten, but we're not dead. And now we have to come back." ■



Q&A

Sean Murray
Managing director, co-founder

When you started out, did being so close to one another make that initial leap into indie development less scary?
Well, we didn't have the classic business guy or management guy starting with us, so that for me was slightly terrifying. But Ryan Doyle and I had worked very closely [at Criterion], and Dave Ream and Grant Duncan went to school together, so they've known each other even longer. Between the four of us, we'd all known each other for years and years, so we were good friends, which I think is a weird makeup for a company, but obviously a nice one.

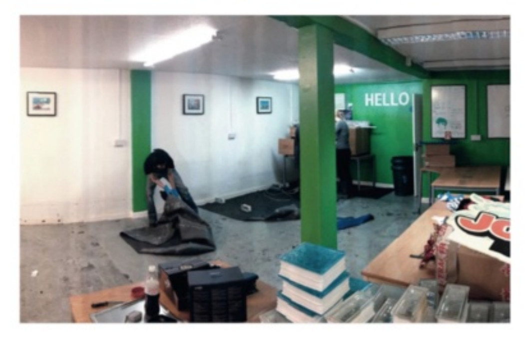
How has that changed how you do things?
We started as a group of equals, and a group of friends, and that's what we still have now. When you set up a company as we did, you don't necessarily think, 'What's our company culture going to be?' but it naturally happened like that. And you aren't going to take any shit from each other, so that obviously helps.

Looking around here, it seems the flood affected your premises more than others.
Actually, everywhere was the same. There were cars that were pretty much underwater, and we're surrounded by residential houses with families that were completely flooded out. And you can imagine what that's like on Christmas Eve when you have kids. That night was really bad for us, a horrible feeling, because it's your personal stuff as well as the office.

Were you worried that you'd lost even more?
We were really lucky that we had backups [of *No Man's Sky*], but I couldn't imagine a situation where you wouldn't, so from that point of view you're not too worried about that. What goes through your mind at times like that isn't rational, but it's not until you sit down with source code a few weeks later that you realise it's OK. Lots of people were asking us [what we'd lost] and you don't want to answer, because you're not sure. But we're fine and back working now.

When you reported the flood on Twitter, there was a huge groundswell of support. What kind of assistance did you get?
A few people said things about Microsoft helping us – I've seen that on Twitter a lot but, well, they didn't! They are really nice people and offered to help us, but we were laser focused on getting back up and running.

Is that down to your indie mentality? Does the desire to go it alone mean that you're less likely to seek help?
I felt a bit embarrassed by it, to be honest. I mean, we posted on Twitter, which is how people knew, but we didn't post about it [to get help]. And then I would go home and check websites and find stuff on **Edge** and Kotaku about it, and it was just a horrible feeling. I didn't want people to think about it. I didn't want people to know about it. I'd rather invest my own time in solving the problem rather than rally everyone else round to help us.





The flood made a mess of Hello's regular office space, but the *No Man's Sky* team (top, from left: David Ream, Grant Duncan, Hazel McKendrick and Sean Murray) is continuing its work upstairs



THE MAKING OF…

Die Hard Trilogy

How a team of underdogs created three action-packed tie-ins for the price of one

The New York City of *Die Hard With A Vengeance* pioneered nonlinear driving, arriving some three years prior to Reflections' *Driver*

Format PlayStation, PC, Saturn
Publisher EA
Developer Probe Entertainment
Origin UK
Debut 1996

Cars fitted with atomic bombs. Hostages in flames. Arterial spray. *Die Hard Trilogy* is wildly inauthentic, but exactly the game that 20th Century Fox should have expected from Probe Entertainment had it consulted the studio's back catalogue. Since the mid-1980s the UK studio had built a reputation from its handling of movie licences and arcade conversions, producing titles such as *Batman Forever* and *Judge Dredd* along with Master System and Mega Drive versions of *Mortal Kombat* and *Mortal Kombat II*. While the Croydon company also delivered a ZX Spectrum port of *Sim City*, it was better known for picking up where the arcades left off via a succession of no-nonsense, action-heavy shooters. Platform agnosticism and a willingness to take on almost any job meant that Probe became the go-to studio for lucrative movie crossovers based on the likes of The Terminator and Alien.

In early 1994, the power of Sony's forthcoming PlayStation promised a new era for licensed games, and Fox struck a deal with Probe to make *Alien Trilogy*, an atmospheric FPS that combined three movies' worth of source material into a single narrative. It was never intended for the developer to work on a Die Hard game.

"Fox then suggested we develop a game based on their new TV game show called Scavengers," **Fergus McGovern**, founder of Probe, says. "We had already committed to the project when I saw the first episode. It was absolutely dreadful. When they reviewed the TV ratings over the next few weeks, they decided to cancel the game."

Fox wanted to transfer the investment it had made in Scavengers to a licensed game based on Die Hard With A Vengeance, due in cinemas in the summer of '94. McGovern had other ideas. "The two previous *Die Hard* games were terrible. I suggested that we develop all three Die Hards and make a game that would blow everyone out of the water."

This pitted the xenomorph against McClane within the studio, with the projects developed by different teams on the same office floor. *Alien Trilogy* stole an early advantage when Probe was bought by publisher Acclaim, whose arch-rivals at Electronic Arts had already signed a deal to publish *Die Hard Trilogy*. This meant the studio had little to gain by giving the latter game full resources. Talent and technology



The Saturn version lacked the PS1 iteration's transparency effects. In the old days, console wars were fought this way

were funnelled across the room and *Alien Trilogy* became Probe's priority. *Die Hard Trilogy* was soon the underdog, staffed by a small team numbering in the teens.

Charged with making it work were two men new to Probe: **Simon Pick**, lead programmer and game designer, and **Dennis Gustafsson**, art director and game designer. "We were sitting in a room and Fergus came in to tell us that we had the Die Hard licence," Gustafsson recalls. "He asked us what we thought we could do with it."

Neither had worked with hardware as powerful as Sony's PlayStation before. "None of us really understood what was involved in making a 3D game; we'd all written 2D sprite-based games," Pick says. "We had a PlayStation around a year before it was out. We hadn't seen any other titles, and we really had no idea what we were up against at that point. That was really scary."

> "I remember saying, 'Why don't we make three games? How hard can it be?' We were very naïve"

The team had 18 months to deliver the finished product. It would have been easiest for *Die Hard Trilogy* to mimic *Alien Trilogy* and combine the films into a single cohesive game. "But we didn't have a script for the third film," Pick says. "Early on, we didn't really know what was going on. It was difficult to get a consistent idea without knowing what the third film was." The staffers tried their luck by producing a number of prototypes, which included various shooters and a vehicle game set in subterranean tunnels.

"Then we got the script through," Pick says. "Fox came over and they basically said they didn't like any of what we'd done. They said we needed to find a different direction." It was then that Probe's team made an unorthodox decision that would make this the hardest job of their lives. "I remember walking into a meeting one day and saying, 'Why don't we make three games? How hard can it be?' We were very naïve."

Making three bespoke games for one package was rare, and for good reason. "I think I wanted to impress Fergus," says Pick by way of explanation. *Die Hard* took shape as a thirdperson shooter, the player working their way up the tight, terrorist-infested floors of Nakatomi Plaza. *Die Harder* is a lightgun shooter set in Dulles International Airport. The car prototype became *Die Hard With A Vengeance*, putting you behind the wheel in a nonlinear New York City to chase ticking bomb cars against the clock. Gustafsson calls it ambitious. Pick calls it stupid. "Three times the work, three times the code, three times the QA," he says. "We massively overreached in what we thought we could do."

While *Alien Trilogy* was worked on by a large team of seasoned professionals, *Die Hard Trilogy* had to rely on the enthusiastic but inexperienced. **James Duncan** was 19 when he was hired as 3D world modeller. He hadn't made a game before. "It was strange," he says of arriving at Probe. "Die Hard had this Hollywood razzamatazz. The reality was a few guys in a room in Croydon."

Their Acclaim-favoured neighbours nicknamed them Team Try Hard. "We were the poor relation to [the *Alien Trilogy* team]," Duncan says. "That was a very tightly controlled, highly focused and designed game. We had fewer people, we had older machines, and we were working ridiculous hours. We were just having a laugh. So there became this rivalry, and that spurred us on."

What the Try Harders lacked in resources, they gained in creative freedom. Fox mostly left the team to get on with it. "There was no real design. We made it up as we went along," Pick says. "We knew the overall feeling we wanted and the various points we wanted to hit gameplay-wise. We had a design document, but it was written after the fact. We'd implement a feature and the designer would write it up to send over to Fox as an update. We all just wanted to make it as fun as possible."

Development became a free-for-all of wish fulfilment. An idea suggested in the morning would be in the game by the time everyone went home. Play any of the three games in *Die Hard Trilogy* and barely a moment passes without an action beat. Terrorists catch fire. Pigeons catch fire. Civilians you should be saving catch fire. Most infamous among fans is the gore that spatters your windscreen in *Die Hard With A Vengeance*. "That was my idea!" Pick says. "As soon as I got the pedestrians on the sidewalks, I wanted to run them over. But it wasn't quite

cool enough. Wouldn't it be funnier if there was blood on the windscreen?"

"You're talking about young guys being given the chance to do whatever they wanted with a major Hollywood movie," Duncan says. "[PlayStation] moved the goalposts substantially forward. We could put in anything we wanted. It was liberating. We were waiting for someone to stop us, to force us to tone it down."

Nobody did, and while the team cranked up the carnage quotient, a lack of experience and paucity of resources began to bite on the technical side. The need to deliver three complete games stretched the team members to breaking point, and forced them to cut corners wherever they could. "On *Die Hard 3*, the cities were too large to build completely," Pick says. "We made very small sections, and then a system would generate some kind of internal map that would figure out what came next over the horizon."

It was effective, but the results were riddled with errors that had to be fixed by hand. "It would get hugely complicated. We didn't have a sophisticated way to manage that," Duncan says. "It was all like a big jigsaw."

It was worth it: *Die Hard With A Vengeance* became a forerunner for open-world driving games on PlayStation. "We did that as well as stressing out over two other games," Pick says. "It was a couple of years before *Driver*. They refined it, but I like to think you can see our influence."

The next challenge was filling these stitched-together environments with people. The team was used to working with sprites, and didn't know how to economically use polygons for character models. This is why the people in the game are bizarrely misshapen. The team called them Meatball Men. "They were layered sprites, scaled and stretched to give the illusion of being a person," Gustafsson says. "They were ugly, but it allowed us to have something like 16 people onscreen instead of two. I don't think it would have been the same with only two enemies. They looked believable as long as you didn't get too close, because we had mo-cap animation."

This was another unusual process. "I think we had the first European mo-cap. There wasn't any studio to go to, so we got a suit with ping-pong balls on it and set up cameras in a local church hall," Gustafsson says. "The animations were really glitchy, so we hired two guys from the BBC, who were so happy to get a job in the game industry. They sat in a windowless room for a year cleaning up the mo-cap animations. Poor guys."



Dennis Gustafsson
Art director/game designer

Which of the three games is your favourite?
The first one. I had more or less a free hand in designing *Die Hard 1*. I like taking on hordes of enemies, picking up weapons, and blowing things up. I wanted it to be action-packed and intense. One of my favourite games now is *Dark Souls*. When you get a break in that game, your palms are sweating and you're so thankful. That's the kind of feeling we wanted for *Die Hard 1*.

Did you worry about doing justice to the film?
I'm a great fan of *Die Hard*, but I never wanted to compromise playability in order to stick to a movie script. In a game, the player becomes the hero. So I played it loose. The theme of the movie had to be recognisable, but you don't want cutscenes and QTEs just to try to get the movie experience. You need to look after the player. If a game tries to be a movie, I find myself screaming at the screen.

Do you think *Die Hard* was an influence on later thirdperson shooters?
I'm not sure. The game itself is really not that original. It's essentially a top-down isometric shooter. *Tomb Raider* came out a few months after us, but we had no idea about that at the time. I never played it. It was probably more influential than us. But I was quite happy with what we'd done..

The Meatball Men were so ugly that the team decided to give them their own faces. Probe's team appear as hostages, terrorists, and general fodder. "Fergus came back from a trip to Japan with what was supposedly one of the first digital cameras in the UK," Gustafsson remembers. "It was a brick. It was real amateur stuff. We sat on an office chair and took eight photographs from different angles, and we ended up in the game. It didn't matter that it looked so awful – we had a great time setting each other on fire."

The team used the same DIY methods for the protagonist, who is seen mostly in *Die Hard*. The budget wouldn't stretch to Bruce Willis's likeness. "The model in the game is my head with programmer Greg Modern's hair," Gustafsson explains. "Greg had a lot of hair, and I didn't. The first one, where Bruce Willis has a lot of hair, we used a lot of hair. Then less for the second, and even less for the third."

The deadline loomed, and the last few months of production held several seven-day weeks to ensure the final product wasn't an embarrassment. "I basically had a nervous breakdown," Pick says. "We were working such long hours. It was pretty awful. At the time, I hated [*Die Hard Trilogy*]. I just thought, 'Sod it, let's get it out the door'."

The haphazard approach to almost every aspect of production could have equalled a disaster, but *Die Hard Trilogy* became a critical and commercial hit. It worked, says Duncan, because the Try Harders developed a close bond. "We went out to a greasy café once a week, and to the pub a lot," he explains. "It was a bonding thing for the team. And because we got on, we could get through the hard times more easily. We developed real friendships and we trusted each other. It meant we could rely on each other and know the job would get done."

Alien Trilogy was released six months earlier to generally positive reception, but it was criticised for repetition and a lack of narrative focus. Those weren't issues for *Die Hard Trilogy*, which was praised for its variety and bombast.

"It could have gone either way," Pick says. "It could have been a complete nightmare of a game. I think it has a good heart. It's a bit glitchy and dodgy in places, because we bit off way more than we could chew, but I think the passion we had for the game really shows through. After it was out, I was very proud of it."

Die Hard Trilogy sold well, but Probe didn't see much of the money. "Over the years, Acclaim hadn't been paying Fox all their due royalties for things like *The Simpsons* and previous *Alien* games," McGovern says. "Fox offset all the money that Acclaim owed them from previous projects against the money we should have got as royalties on [*Die Hard Trilogy*]. I've always said if I ever see the guy who screwed us out of that money, I'll punch him on the nose."

Nearly 20 years later, *Die Hard Trilogy* isn't a technical masterpiece, but its unpretentious exuberance means it is more fondly remembered than its po-faced *Alien* counterpart. Many games went on to improve upon everything *Die Hard Trilogy* attempted, but the gleeful diversity of the compilation hasn't been repeated. And it's still the game that each member of the team is most frequently asked about. They all agree that only a once-in-a-lifetime production could have triumphed over the odds like it did. "It was one of those things that catches the zeitgeist," Duncan says. "It had a real impact. They were big action movies, and it arrived on the cusp of PlayStation coming out. We were riding that wave and had a game that had never been achievable on a home console. It was right place, right time." ■







Tight polygon budgets meant corners often had to be cut (car wheels were notoriously difficult), but the new PlayStation hardware allowed Probe to build vehicles and environments that were more realistic than ever before. The team watched the Die Hard movies carefully to accurately recreate famous set-pieces and settings, such as the Dulles International Airport













A close working environment compensated for the absence of a design document by allowing the Try Harders to look over each other's shoulders. The cramped space forced them to decamp to a nearby church hall for the rudimentary motion capture (left)

Surrogates

After the success of *Die Hard Trilogy*, 20th Century Fox was keen to make a sequel, but the members of the team interviewed here had all left Probe together to start their own studio, Picture House. "We were approached by Fox to make *Die Hard Trilogy 2*," Simon Pick says. "At the same time, we were in negotiations with Sony to do an original game idea. By then I was sick of Die Hard, so we went with Sony." That new game was *Terracon*, which sank after middling critical reception. *Die Hard Trilogy 2: Viva Las Vegas* was instead developed by n-Space. It combined all three playstyles into a single narrative, reviewed poorly, and also disappeared. "In hindsight, I think we made a mistake," Pick says. "If we'd made *Die Hard Trilogy 2*, we probably would have done much better, both financially and with the product." Did the team ever play it? "We bought a copy. We were a bit upset and depressed in case anyone thought we'd been involved."



Die Harder was originally designed for the PlayStation mouse. Until late in production, using a lightgun caused the game to crash



What Games Are



TADHG KELLY

The dark underbelly of design

That light in a doorway in *Half-Life 2*, those two switches coloured red or green in *The Stanley Parable*, those shiny golden rings that trigger a satisfying ding when you collect them, that table that shows you all the loot you have yet to unlock: there is an unabashedly behavioural component to almost every game. Colour, sounds, animation and music have inherent qualities that a smart team can use to accentuate effect. As a designer, if I need you to notice something, feel something, or find something fascinating, there are lots of behavioural tricks I can use.

It all depends on the kind of game I want to make. An experient designer thinks in terms of highs and lows. He's all about the theatre and psychology of games. Perhaps his goal is to get you more deeply into the emotive space of the game. Perhaps he wants to use the game to convey a point. Either way, he focuses on the beats of the game and making sure he has your attention. But experient design has a dark side.

'Dark game design' is a term I adapted from 'dark patterns', a phrase used in the user-experience community to describe sleazy web (and other) design. Dark patterns are lowbrow tricks, such as disguising a banner advert to look like a Windows dialogue box in order to make a user download malware. A less invasive pattern is the practice of filling an innocuous checkbox by default to register a user on an email list.

An equivalent dark game design pattern uses tutorials to direct a player into buying things. You open a city-building game for the first time. It welcomes you, invites you to build your first building, open your first quest, earn your first reward and then buy your first in-game object. If you feel that transacting is easy, safe and socially acceptable, you are more likely to do so again. Psychologically, this is called 'onboarding'.

With the rise of social and mobile games, dark design patterns have exploded. In part, this is because they are easy to replicate, but also it's related to economics. On PC or consoles, games tend to be sold up front. There is a kind of trickery used in promoting many games to maximise sales (effective trailers, say), but once bought, there's rarely any more need for dark game design.



Deception is often rewarded. All arguments to the contrary start by saying you shouldn't go dark because it's wrong

But free-to-play games rely on a few users paying for the many, and doing so repeatedly. There's greater temptation in that environment to manipulate the game in order to generate better outputs (better adoption and better revenue). The free-to-play game maker often has to consciously choose not to fall into darkness.

As with all dark sides, choosing to deploy dark game design usually swaps short-term gain for long-term troubles. Just as many web users have learned to avoid those fake dialogue boxes and look for the checkbox signing them up to a newsletter, players get wise to dark game design. The novelty of sharing high scores is replaced by autocanceling. Players learn to do this as reflexively as muting their TVs when adverts play.

In the short term, your game's player numbers may go up and your revenue might explode, but you inevitably sacrifice integrity. You might have onboarded a few players to pay for stuff, but you're teaching many more to ignore any messages that the game spits out. It becomes harder to communicate with players and you lose their loyalty or the possibility of a game building a unique, defensible culture.

Maybe you're fine with that. Casino game makers solve loyalty problems with massive amounts of advertising. They know what the expected lifetime value of their paying customer will be and simply work out a cost of acquisition.

Maybe you hide in ethical equivalence. If you play the iOS version of *Dungeon Keeper*, it asks you to rate the game. But if you want to rate it less than five stars, it pushes a form on you to email the developers. The result? Lots of five-star ratings and a defensible argument against the trick.

Personally, I think the main problem with dark game design is the way that it leads to fatalism. Once you do one grey thing and the numbers go up, you do something a little greyer, and another, and another. Pretty soon you can't really tell what's dark any more.

When your studio only thinks of a game in terms of its numbers, that frames how you make decisions. Do we add feature X or mode Y? What numbers back that decision up and how do you know it will be successful? Dark game design may be founded on a circular sort of logic, but it's a circle that's hard to break out of.

Tricks often work. Deception is often rewarded. All arguments to the contrary start from the place of saying you just shouldn't go dark because it's wrong. And the fatalist says: prove it. The outputs do matter, but so does the darkness or light of the solution to improve them.

When adding a feature, do pay attention to what you expect the numbers to do, but also ask the question: 'Are we going dark to get there?' If so, find another way. There is always a smarter path, a way of getting to where you want to be without sacrificing the ephemeral qualities of the player community you're engendering.

Tadhg Kelly has worked in games, from tabletop to consoles, for nearly 20 years. Visit him at www.whatgamesare.com



In The Click Of It



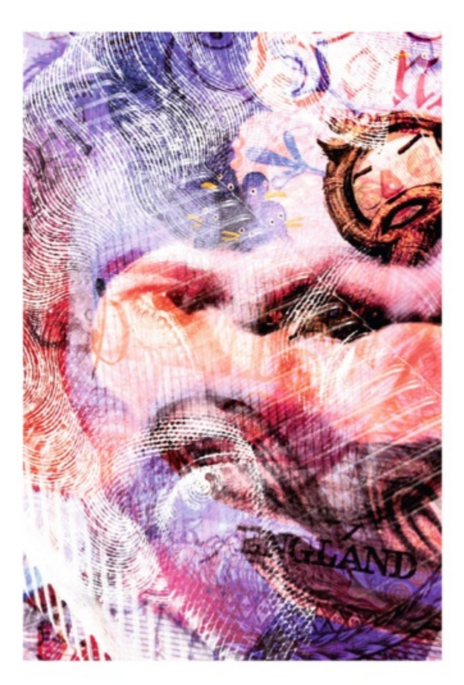
CLINT HOCKING

The cost of blockbuster gaming

As we march forward into a new console generation, one thing we can expect to see more of are highly polished, story-driven games. These games will feature impressively rendered characters with many more layers of even higher fidelity motion-capture animations, brought to life through the voice work of extremely talented professional actors. These stories and characters will increasingly be imagined and written by top-level writers – both those with years of game writing experience as well as those who are able to successfully transition from other media. In the console space, over the course of this generation, I think it's safe to predict that well-crafted and highly polished narrative will be more important than ever before, and will reach new heights of quality.

Of course, it also goes without saying that all of these things have costs. The exponentially increasing costs of higher fidelity rendering and animation are costs the industry is familiar with confronting in each new console generation. Many publishers and developers have spent the past few years laying the foundations that will allow them to absorb and manage these costs, and they are now well prepared for them. But there are also new costs that the industry has not historically had to manage. As we seek to improve the quality of our stories by bringing in big-name writers from film or television, and as we look towards bumping up the marquee value of our story-driven games by using famous actors to voice our characters, we will encounter not only new costs, but new ways of doing business.

Guilds, unions and agents and the associated overhead of working through them to access this new talent come with all kinds of costs that game development projects are not accustomed to absorbing. The cost for three days of voice recording work from an unknown actor may be much higher than the cost of three days of work from the sound designer on the development team who integrates all the voices, but it is almost laughably insignificant compared to the cost of three days of full-body, facial and voice performance capture from a well-known star. A star does not fly through a public airport and spend four nights at the Standard, taking a cab back and forth to the recording studio. A star flies on a private charter with their family and stays in Beverley Hills. A star has a driver, and a car, and needs a trailer and a voice coach and a catered lunch. A star needs handlers and assistants to make sure everything runs smoothly so they can focus on their work without distraction. If there are changes needed to the script, the writer might need to be flown out, meetings scheduled, rewrites done, and changes validated by various leads and directors back at the studio. Everything might be delayed for a few days – schedules shifted, flights rebooked, housing extended, tutors flown in for kids missing school…



A movie script is a roadmap to its production. If you know how to read it, it tells you how much a movie is going to cost

If you're a game developer reading this, you may be laughing at how ridiculous it sounds. You've probably taken your share of economy-class, red-eyed flights with three connections to share a hotel room with three other people to work 16-hour days at E3, and then had your expense report rejected for going above your $50 per diem because of a $49 cab ride you had to take when both backup power supplies for the console you were demoing on melted and you needed to go to Santa Monica and borrow one from a friend working at another studio.

The reality, though, is that these costs are not ridiculous. They are not ridiculous because film-industry-style production management has figured out how to account for all of these risks and their associated costs in order to bring a project in predictably on budget – or at least within a predictable margin of error over budget. In a sense, it doesn't matter what the costs are so long as they are predictably lower than the projected return. Ultimately, the thing that makes the costs predictable is the linear, authored nature of filmic narrative. The script for a movie is a roadmap to its production. If you know how to read it, it tells you how much the movie is going to cost. This is not the case for games. Yet.

As the game industry moves into this brave new world of exponentially increasing costs and escalating demand for higher fidelity characters and Oscar-calibre performances, we have to wonder where the predictability that allows us to account for these costs is going to come from. It's not going to come from a richer, more meaningful possibility space. Dynamic gameplay, by its very nature, is unpredictable, and as a consequence requires an unknowable amount of time and energy to iterate, polish and refine.

With a six-hour story in hand, written by an award-winning writer, and performed by famous actors, we have a predictable map and a mostly predictable budget. More importantly, we're armed with the knowledge that the design of the gameplay only needs to be balanced well enough that the average player will not discover how the design degenerates until after the six-hour mark. And once we have that predictability, games will have finally arrived.

Clint Hocking is a designer who lives in Seattle and also writes about games at www.clicknothing.com





Word Play

JAMES LEACH

I am woman

Female characters in videogames. Can't think of any? If so, what is wrong with you? There are loads, and there have been for ages. That's good, of course, and what's better is that it seems we've all grown up and moved on from the arguments about demeaning stereotypes with inflated breasts. Now we all accept that this is just how they look. And they're fine as role models, because nowadays they're almost always as heartless, conniving and violent as the men.

Now I – like all self-effacing, sensitive men – have never claimed to understand women. I mean, I've met them and even heard them talk with their mouths about things, but because I treat them nicely, I can claim they're wonderful and mysterious, usually in the hope that they'll find this endearing and friend me on Facebook. I work in games, though, which not only makes this unlikely, but it means that from time to time I have to create female characters and write dialogue for them.

The problems often start when the briefs are handed out. "This is Cyrenia. She's strong, sassy, smart and easily the match for any man. Make sure that comes across," my developer overlords command. I nod at this, chiefly because I still don't heed the advice I doled out about arguing back more. But really, although those attributes are not bad in themselves, it's the wrong starting point. Oh, and at this point I'd like to say that if you are still sniggering at the "briefs are handed out" thing, perhaps this isn't the right article for you.

So where's the right place to start? Well, what are women? Just like men, they're just miserable piles of secrets, as someone once said. By highlighting the comparison, even favourably, all we're doing is inventing two-dimensional ciphers who we can claim aren't demeaning because, 'Look, she's just as wisecracking and tough as those guys!' In games requiring characters of either gender to be more than fleshy, shouty self-propelled guns, this won't do. You don't start by defining how strong they are; you start with their weaknesses. Every main character in every game (and book and film and TV show) has to be strong at some point. However, it's their flaws and weaknesses that make a character real, and it's the overcoming of these that make you care.



It's their flaws and weaknesses that make a character real, and it's the overcoming of these that make you care

When it comes to female characters, we fidget nervously about this. What flaws could we introduce? If she's not as physically strong as a bloke, that sounds old-fashioned and lazy. Surely she's gone through the same training as the rest of the Great Order Of The Combat Elves or the 251st Recon Asteroid-Blower-Upper Wing or whatever? She's more than a match for the men (or male elves of whatever). She can't be afraid of snakes, wyrms, Stygian hordes or anything. And God forbid her wisecracks aren't the equal of the guys in the team who utterly accept her as one of their own. And double God forbid she feels emotions the males don't, and that causes her to be different from them. Start down that route and we may as well make her the cook who runs away screaming when the lasers, rounds or arrows start to fly.

So, hamstrung by our fear of making a realistic female, we have a meeting about her. Let's give her superpowers. That'll flesh out the character and make her more interesting. "It worked for Lilith in *Borderlands*," some chap who is still deeply in love with Lilith in *Borderlands* will say.

Here's a way of really being edgy without in any way upsetting any female gamers or their mums: our anodyne tough heroine can be the bad guy. This in no way makes her weak or flawed, you see. In fact, it can only bolster her empowered position. And since nobody complains that the bad guys in games are always female, we can allow ourselves a moment of smugness. "Like Rayne from out of *Bloodrayne*!" someone who still loves her says, and we all look down and fiddle with our pens because none of us played it and it was out ages ago.

One point that will never get raised, though, is how beautiful our thin (in every sense) female character needs to be. The answer is utterly. All the guys are archetypically good-looking, so why should the lasses be different? Again, look at film and TV. We, the consumers, prefer pulchritude. And it's not even to do with the game-playing public's demographic; we all like good-looking people on our screens. Would preteen girls love the Disney princesses if they all had faces like bags of smashed crabs? Plus, I suspect that if a female character wasn't gorgeous, it would make the art department look like they didn't have the ability. And if there's one thing I know about dev art departments, they will certainly put in the hours when asked to draw beautiful girls.

Anyway, how much of a problem is all this? Not much. Sorry for having wasted your time. But I do think that while games feature empowered, beautiful and flawless females, they do so to their detriment and for fear of the consequences.

There is another way to deflect incoming fire – hire a female writer from the outset. I can't stress enough what a bad idea this is, though. The reasoning here is simple: it stops me from even having a chance of getting the job.

James Leach is a BAFTA Award-winning freelance writer who works on games and for ad agencies, TV, radio and online

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Region Specific: Finland

After another booming 12 months, Helsinki's game industry is plotting its next course

Finland's game industry has been growing at pace for several years, but only in the past 12 months have things exploded. The billion-euro investment in Supercell has seen VCs flock to the country looking for the next big thing, and our latest visit to Helsinki finds an industry that is flush with cash and teeming with ideas. One of the nation's longest-running studios, Housemarque (1) (p134) is planning its next move on mobile and console after the success of PS4 launch game *Resogun*. A few miles away, RedLynx (2) (p136) is similarly planning a multiplatform assault with the forthcoming *Trials Frontier* and *Trials Fusion*. Meanwhile, the continuing success of *Angry Birds* has seen Rovio (3) (p138) expand both elsewhere in Finland and overseas, its attention broadening beyond just games and into merchandising and filmmaking. It's not just about the big players, though. Everyplay (4) (p140) has ambitious plans for a small company, believing it can solve the iOS/Android discoverability problem with a video sharing and streaming service. Next Games (5) (p142) intends to spearhead the next generation of free-to-play mobile games with an all-star team consisting of former Rovio, Remedy and Supercell staff, while fellow startup PlayRaven (6) (p144) plans to use its founders' rich mix of experience to bring a new layer of depth to the iPad strategy genre.


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GOING GLOBAL

With rapid growth continuing apace, Finland is spreading its wings far beyond Angry Birds

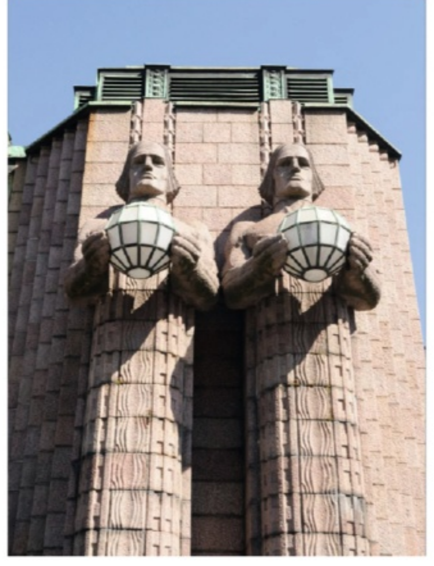
LANDMARKS
1 Helsinki's capital region also covers Espoo, Vantaa and Kauniainen, and holds over a quarter of the Finnish population.
2 Senate Square is in the oldest part of Helsinki, with some of its buildings dating back to the 1750s.
3 Alvar Aalto's Finlandia Concert Hall hosts opera, ballet and conventions.
4 Nuuksio National Park in Espoo, a city 12 miles from Helsinki which hosts Rovio HQ.
5 Helsinki's tram system is the inner city's main form of public transport, and one of the oldest of its kind in the world

This winter has been a disappointing one in Finland. There's been snow, of course: it's piled up at roadsides and on the bonnets of parked cars that seemingly haven't been started since summer. And it's icy underfoot, too. But during our visit the temperature rarely drops below freezing, and in Finland, that's bad news. Once the ice and snow starts to melt the kids have to stay inside: there'll be no skating on frozen lakes. As one interviewee puts it, it's almost like Finland's had no winter at all. Yet the state of the weather is just about the only note of disappointment we hear during our visit. Elsewhere there is only optimism.

It's easy to see why. This time last year the Finnish game industry comprised some 150 companies with 1,500 staff. Now, according to industry association NeoGames, there are over 200 firms with a combined headcount of around 2,400. After years of stable, if modest growth, Finland's game industry is exploding.

And it's not just because of Rovio (p138). The *Angry Birds* maker remains the Finnish's game industry's biggest global success story and its largest videogame company, even if fewer than half of its 800 staff work on games nowadays as the transition into a Disney-style media empire continues. The investment by GungHo Online Entertainment, the company behind *Puzzle & Dragons*, in *Clash Of Clans* developer Supercell – $1.53bn for a 51 per cent stake – proved to the world that Finland was no one-hit wonder. Investors have flocked to the region looking for the next big thing, hoping to unearth the company working on the next *Angry Birds* or *Clash Of Clans*. That, combined with the continuing good work of government funding agency Tekes – which matches a company's private funding and essentially lets startups double their money – has fostered a sudden surge in fledgling concerns with big ideas and the financial freedom to fail.

Which isn't to say that failure is part of the plan. Finland's new breed of gaming startups have been founded by people with a rich mix of industry experience. PlayRaven CEO Lasse Seppänen (p144) was executive producer on *Alan Wake* and rose to chief operating officer at Remedy Entertainment before founding the company behind iPad espionage management game *Spymaster*. He began his career in mobile, benefiting, like so many Finnish game developers, from close ties to Nokia in the formative years of mobile gaming. His co-founders bring a similarly rich mix of experience from Remedy, Digital Chocolate and Wooga.



Finland's architecture has its own signature style, unlike its games. A global outlook has, however, helped studios succeed

It's a similar story for Next Games (p142), a company setting out to define the next generation of free-to-play mobile games. One co-founder left an executive position at Rovio; another came from Supercell, where he was director of metrics and analytics. Its head of studio spent years at Remedy, then set up Swedish *Need For Speed Rivals* developer Ghost Games for EA. It's the sort of talent base that VC investors find impossible to ignore. Finland is far from the only country in the world where staff from big companies are striking out on their own, but there's a key difference here: free will. The bigger studios aren't closing down.

In fact, they're thriving: RedLynx's growth mirrors that of the industry as a whole. When it was acquired by Ubisoft in 2011 it had 45 employees. Last year that hit 75, and now it has 110 staff working on its most successful IP. *Trials Fusion* is its most ambitious project to date, spanning previous and new-generation consoles and PC, the company's first game to launch on multiple platforms. It's taking the series to mobile devices, too, with the free-to-play *Trials Frontier*. On p136 we discover how the studio is adjusting not just to its seemingly ever-increasing size, nor merely working on two of its most complex projects to date, but also how it is finding life fitting in to the Ubisoft family.

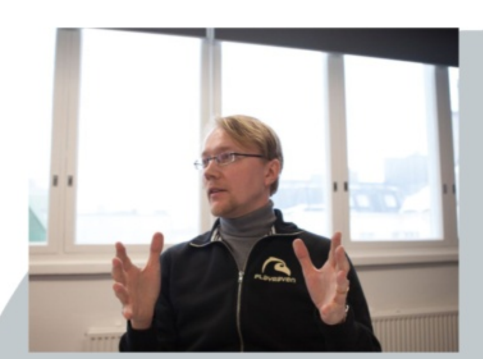
Housemarque (p134), meanwhile, has grown without the help of a publisher. It has close ties to Sony – having kept its *Super Stardust* series exclusive to PS3 and PSP during the previous generation – but the PlayStation maker is a partner, not a benefactor. The success of *Resogun* – PS4's best-received launch title, and one that reached a huge chunk of early adopters as a launch-day giveaway on PS Plus – might have some studios expanding aggressively, reaching for the stars. But Housemarque's been in business since 1995, and has had its ups and downs. It's taking nothing for granted. Nor is Everyplay (p140), which is challenging App Store convention with a novel gameplay video sharing and streaming platform that might just be the ticket for solving mobile gaming's discovery problem in a way that benefits developers and players alike.

What unites all these companies, and Finland's industry as a whole, is the obvious desire to be different. None of the six studios on the pages that follow are in direct competition with each other. Quite the opposite, in fact, with information freely shared between companies for the common good. It's perhaps a rather socialist outlook, but it has its basis in common sense.

What unites these companies, and Finland's industry as a whole, is the obvious desire to be different. None of the studios featured here are in direct competition

Finland has to think globally: a country of just five million people cannot support a game industry that looks only within its own borders. These studios aren't just trying to do things differently to each other, but the whole world.

The term 'next generation' means many different things in Finland, from the console developers working on PS4 and Xbox One to those seeking to redefine expectations of free-to-play on mobile; from the logical evolution of video capture and sharing to using games as a springboard into the cross-media stratosphere. At this rate the Finnish game industry workforce will be long past 2,500 by the time the ice melts: where, in a country of just five million, are the next 2,500 going to come from? The Finland of 2014 faces perhaps its biggest ever challenge, and it's posed by its own success. ■







WHAT'S NEXT?

It has one of the fastest-growing game industries in the world, but where does Finland go from here?







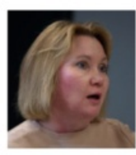
Jussi Laakkonen
CEO, Applifier



Suvi Latva
Coordinator, NeoGames



Tero Virtala
Managing director, RedLynx



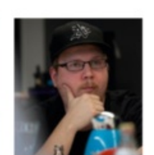
Arja Martikainen
Senior consultant, Barona



Lasse Seppänen
CEO and co-founder, PlayRaven



Joakim Achren
Co-founder and CPO, Next Games



Mikael Haveri
SVP of self-publishing, Housemarque



Jay Ranki
Head of studio, Next Games



Sami Lahtinen
SVP of game development, Rovio

This country of just five million inhabitants is home to some 250 game companies with a combined headcount of around 2,500 – and it's only going to get bigger as investment floods in from backers hoping to unearth the next Rovio or Supercell. How can this small nation support an ever-expanding industry, and how is its rapid growth to be maintained? Here, we discuss how these challenges will be met with **Mikael Haveri**, SVP of self publishing at Housemarque, whose plush new offices host our discussion; **Sami Lahtinen**, SVP of game development at Rovio; **Joakim Achren** and **Jay Ranki**, respectively co-founder and head of studio at Next Games; **Lasse Seppänen**, CEO and co-founder of PlayRaven; **Tero Virtala**, managing director of RedLynx; **Jussi Laakkonen**, CEO of Applifier, the company behind Everyplay; **Suvi Latva**, coordinator at Finnish game industry association NeoGames; and **Arja Martikainen**, senior consultant at recruitment specialist Barona.

What challenges do you face as the Finnish industry continues to grow?

Tero Virtala It's a very big question. Look at the last five years. We have always had very high ambitions for the industry, but we always underestimate it. I think the current ways of attracting talent to the industry may not be enough; we need to think about how we are going to attract the next 2,500 people.

Jussi Laakkonen We have a marketing problem. I think fundamentally it's an engineering country – a few exceptions like Rovio aside, we don't really do much branding or marketing. We prefer to be left alone to make money. That needs to change, I think.

Joakim Achren It's part of us as Finns. The humbleness. Who *wants* to come here? We're distant; not that connected. But that's changing now, and we need to do better, saying, "Hey, this is the country where the best games are made".

JL It's hard to say those words yourself. You see Ilkka [Paananen, Supercell CEO] saying that, you see Peter [Vesterbacka, Rovio CMO] saying that, and you're like, "Oh, well, you know…" We are, as a country, quite shy.

Lasse Seppänen I totally agree that we need to attract foreign talent – it's one of the big problems – but the other issue is education, which has come a long, long way. There are hundreds of people graduating per year for games and the game industry. That's one way to fill a bit of the gap. And one thing we want to do, which others do, is outsource. There's fantastic talent out there who don't want to move to Finland but which we can access through outsourcing.

JL It's about doing more with less. I don't know how much Supercell is turning over – maybe a billion last year? With 130 people. Look at Remedy – 100 people doing titles that are done elsewhere with multiple hundreds. Bugbear – 40, 50 people. Finnish studios have always been a little thrifty in terms of manpower.

The country as a whole may have a marketing problem, but what can the Finnish industry do specifically to raise its profile?

JA Events are really good. Think about last summer's Free Your Play that Supercell held: so many people I met at GDC two months earlier were saying, "Hey, let's meet up – we're coming to Finland for this one-day thing". It really attracted a lot of attention for the gaming scene here. Supercell – a very interesting company for everyone in the industry – hosting it was brilliant.

Mikael Haveri I totally agree. We need to keep that in mind; maybe not copy [GDC in] San Francisco exactly, but something in that direction.

Sami Lahtinen We have so many successful game companies now that it lowers the barrier to come to Finland. If you don't feel comfortable in one company, there are other options here.

How has government's attitude to games changed in light of the industry's success?

Arja Martikainen The authorities have woken up. I was asked to join the education and employment group of the Helsinki Chamber Of Commerce. I'm there as a representative of the gaming scene, and they're super-interested and want to lower all sorts of barriers to integrate a foreign workforce in Finland. They are really taking this seriously and understanding the whole thing – some are, at least.

Suvi Lata We're still waiting for action. We're waiting for money, waiting for real actions to support the industry.

TV I think the direction is good. Political decisions always take time. But the groundwork is starting to be done.

JL I would maybe disagree a little bit with Suvi because none of us would be around this table without Tekes. Our brothers in other Nordic countries are very envious of having a funding agent like Tekes, which funds R&D and innovation. It's been absolutely key to all these companies.

LS There's also been a shift in society as a whole because you can now get cultural money for games – the Nordic Game Program, for example. It's small compared to Tekes, but Tekes has also shifted a bit in that direction in that they don't only support engines and technology, they also support making game content and services.

AM At Barona we have a very close relationship with the Finnish labour office. We've created these transitional training programmes that are completely government funded. There's a small fee for companies, they get someone who seems to fit with their culture and has adequate skills, and then it's a trainee programme. Government is really interested in them, because games are a really sexy, hot topic at the moment.

Jay Ranki We've had great success being part of that programme at Next Games – we've seen some really great talent. It's refreshing for me personally after so many years in the console industry, where you need such a specific skillset. Now with the sorts of games most of us are doing you can get much less experienced people as long as they have the talent.

JL The industry has to lift itself by its bootstraps. We can talk about governments and all those things, but for those of us round the table, we don't have time to wait for the government to act. We'll go and make things happen, and the government will follow. We have to be successful; we cannot count on anybody else.

MH I think when the government's ahead of the curve, that's when we're in trouble. [Laughter.]

> "In Finland we're distant; not that connected. But that's changing, and we need to do better, saying, 'Hey, this is the country where the best games are made'"

How much of the marketing problem stems from the fact that you all have such a global outlook?

JL How many times will a successful game even be defined as a Finnish game? In the UK, people are much more accessible for interviews. We're not. We should do a better job of saying, "This is a Finnish game! And here are the guys, they're available, they speak fluent English – let's talk". Supercell's doing that, Rovio's doing that, but does anyone know where *Quantum Break* is made,

where *Trials* is made, or *Resogun*? To some extent, maybe, but the problem when you [make games for] consoles is that the publisher takes the credit. The success of self-publishers lets us control the agenda: say where we are, why we're proud of it, and why we make good games.
MH Should that be a communal effort, though? Should we just do it by ourselves?
JL I think we should bring it up, we should be going to the press and talking. When I worked at Bugbear we were told never to say anything to the press that the publisher hadn't vetted in advance because you'd get shut down by a jealous PR rep on the publisher side. You just can't do that. But self-publishing? Of course I'm going to say whatever I please to the man from **Edge**. Who's going to fire me?
JR The fact that we've always thought global is a positive thing. We never had the luxury of *not* thinking global, so it wasn't something scary.
TV It was a much bigger challenge ten years ago, but when digital distribution started, all those channels started to open up for smaller companies. It was a huge thing. The challenge turned all of a sudden into a huge strength.

You're all working in slightly different fields and you've all experienced change. What's next?
SaL More change. [Laughter.]
LS There are lots of tablet and smartphone companies coming up. I think the next opportunity's probably not on consoles. There are good opportunities there, but if you are talking about the next big hope…
JL Using smartphones and mobile hardware with TV-connected play. Amazon, Apple and Google are all launching [in that area]. What is that? How do you play? It's a very interesting area – I think innovations there are going to be fundamental in a few years' time. For everyone around this table, that is an area that is going to have a massive impact. Some of the console traditions are applicable.
MH Right now there's a split in the industry between mobile and console. That's going to converge: I assume that RedLynx will be making more console-type games for mobile platforms, and then of course mobile people will have bigger screens.
TV One huge strength is going to be crossplatform gaming. Cloud-based games are coming; they're going to be accessible via just about any platform. But if an individual company tries to outline the strategic vision for where the world is heading, it's a huge bet. It's hard to say, but I think passion, developing the kind of games that you love to play, already takes you a long way. If you had to guess which one of these companies is going to be the next big success, no one can say, but I can bet that those successes will come from Finland.
JL Never in the history of mankind have so many people played games. It's the biggest market ever and it's growing incredibly fast. What is the next *Angry Birds*? The next *Clash Of Clans*, or *Quantum Break*? I don't know, but I agree talent, passion, talent base, and experience all help. Everyone around this table's been around the block a few times and we're still making these things. Experience brings more success.
SaL: The pace of learning is [important]. We know the industry is changing: the pace that you can follow, and learn, and learn again and change direction is key here. I think Finnish companies are very successful in that – not only by themselves, but also learning from each other.
TV That's a really good point. When you consider how project management principles have changed in ten years to these flexible models where you have to estimate and change direction. It used to be about finding the focus and only doing that. Now the world is changing so fast, you keep all the doors open.
JL The world is more flat. From Unity levelling the playing field for creators to distribution places like Steam who are democratising it, it's a lot easier now than 15 years ago.
LS I also see a huge opportunity in the further segregation of the app market. There are now more tablets and smartphones than TV sets in the world. TV audiences are very segmented: HBO fans, reality TV fans, The Bold And The Beautiful and so on. Right now we're seeing a very homogeneous selection of games on this platform. There must be many segments, of millions and millions of people, who could be reached if only the discovery mechanism were better.
JL We're working on it! [Laughter.]
LS We know that Apple is aware of the problem – they want to fix it, to evolve the App Store further, but it's not easy. There are a million different music styles in the world, but right now we only have the pop list [of games]. There's no way to find jazz.

"I'd like to see Helsinki become a big hub. I think we'll create our own thing – it's not going to be San Francisco or Montreal, but it's going to be beautiful"

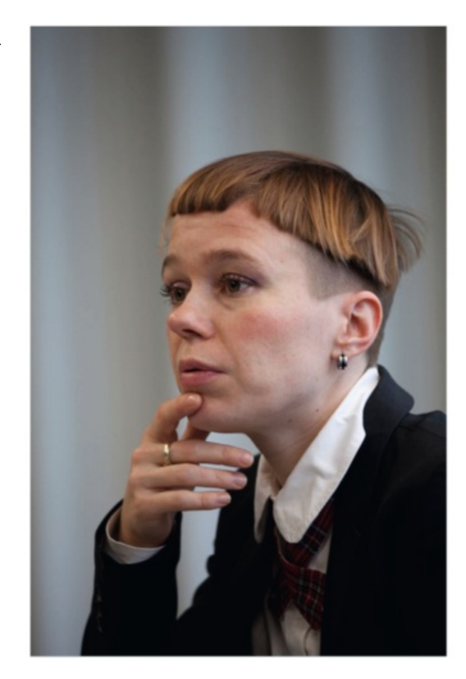


No one's mentioned virtual reality. Does that interest you at a time when games are becoming more social and more connected than ever, while VR does the exact opposite?
MH Games are more social, more mobile, more interactive, and by default Oculus Rift is taking you away from that, but I think it's showing the next extension of what gaming can be: the ultimate interactive medium. When we were kids, all we wanted was to have the next level [of gaming]. I think VR could be it. It should have been the next level years ago, but now we have the technology.
JR It's not going to be for everybody, and it's going to be expensive. I'm not sure if the current hardware is there yet, if it's convenient enough for users. It's going to come, but I think it's probably going to need a big player involved. If Sony brings one out with PlayStation then Microsoft has pressure to bring one out as well. Then they both face pressure to make sure they get content for it that people actually care about. And then we're on to something.
JL I think it's going to be good enough in two, three years. For real this time.

MH It probably won't be a disruptive force, though.
JL I agree. Someone needs to get it in the hands of consumers – that's the hard part.
MH You can see there's a lot of mobile people who are not commenting here because it's clearly not part of their strategy at this point. I think where the money is right now is expanding on that mobile experience, and most of those people won't jump on the VR train.
JA It's a convenience question. Is it a convenient entertainment format compared to a console? Or is it even worse?
JL I think it's more convenient because you're not hogging the family TV. The wife can be watching The Bold And The Beautiful and you can be…
JA But you're even more out of the zone then.
JL If you're watching The Bold And The Beautiful, I want to be out of the zone anyway. [Laughter.]

What about new routes to market such as Early Access and Kickstarter? Bugbear aside, Finland isn't really using them.
JL There are some legal issues with crowdfunding in Finland, and Kickstarter's not available. Steam Early Access, I think, is going to be much more applicable because we can get a game pretty far along here with a relatively small team. I think that would fit the Finnish model better, where you let the thing do its own marketing, while Kickstarter is all fluff. It's storytelling. Good storytelling sells on Kickstarter, not the actual ability to deliver.
TV We'll definitely see growth in Finnish companies using them. We have 250 companies, most of them small, starting out. Of course they need funding.
JR And it never hurts to have more funding options. I'm sure there's going to be a Finnish-based [crowdfunding] thing in the future as well because people in Finland are thinking, well, games are making money – how can I be a part of that?

If you had to identify the best thing about Finland's game industry, what would you pick?
LS Creativity. It's wonderful to see so many startups and be able to start one of your own and make new things instead of just recycling, remaking game X and adding five per cent to it.
JR The diversity of stuff going on here. New independent teams popping up everywhere. There are more opportunities in the game industry in Finland than there have ever been in my lifetime.
MH It's a brave new world. It's pretty much down to what we make of it. I'd like to see Helsinki become a big hub. I think we'll create our own thing – it's not going to be San Francisco or Montreal, but it's going to be a beautiful thing. Finland has a really good basis that's very unique. I think we know it's unique, but we don't know what we're going to create.



SuL It's the lack of a history that gives us flexibility. There's no map for how to do it. And there's passion, of course, and the community. We have a really strong game development community – we're all a big family with the IGDA.
AM And we work for a common cause without any goal. It's socialistic. It's deep in our heads, at least sometimes. In the IGDA, and the Finnish gaming community as a whole, people share knowledge instead of hiding it.
JA The nicest thing to see is engineering talent – there's a lot of it available in Finland – transitioning into game industry talent. I have a degree in engineering, so I came to the industry from being a programmer. It's really nice to see ex-Nokia engineers starting up game companies – they're really passionate, making really good tech as well. It's going to continue for many years, the Nokia engineer flow into the game industry.
MH The best thing ever to happen to Finland is the collapse of Nokia. [Laughter.]
JR Nokia did a lot of good while they were going well, and we should never forget that. They did a lot of good for the industry: many of us started in game companies with close ties to Nokia. But the fact Nokia collapsed so fast has really pushed the startup scene in Finland. That's great for Finland's future: we're not as fragile. We can maintain this startup mentality and many companies are driving the country's economy, not just one big company. More diversity is good for the country. We have Housemarque, one of the key players in the downloadable console game space. We have Remedy working on absolutely the highest quality technical marvels on the next generation of consoles. Then we have all of us mobile guys pushing boundaries, trying to find the next thing and not just trying to copy Rovio or Supercell.

How do you ensure that you all remain friends as the industry gets bigger?
MH If you're a Finn, in my opinion, it's in your blood. You enter a circle as a newbie and it's just great to see everybody and they take care of you. I don't see that going away unless we have some really strict ruling with NDAs and so on. As long as we have beer and IGDA, it's going to continue.
JR But let's not fool ourselves – it means that every single one of us needs to represent that culture, and educate the ones that come from abroad or outside the Finnish game industry, [to ensure] that they understand this culture and adapt to it.
SuL It's forbidden to do any recruitment work in IGDA gatherings, so that also gives things a certain peace.
AM Let's hope they don't kick me out next time!
JR That's one of the big problems in many of the IGDA chapters around the world. They're very much taken over by students and academics, and the actual developers who do it for a living don't want to go because they get harassed by so many students [looking for work]. We're trying to maintain that balance so developers still like to come and network – and of course drink beer, being Finns – but students are also welcome. We're not shutting them out.
LS During the past year we've gone for maximum openness with *Spymaster*. We showed it to as many people as we can: there are people from other companies who play it over Testflight and give us feedback. Not for one second have I been worried that someone would copy the game.
MH I do worry that we're leaving our doors open for a Trojan horse attack. We don't see greedy people coming in and spoiling our perfect infrastructure.
JR Well, we've already had Ubisoft and EA here, and we used to have THQ, and they haven't done much damage. Can we find someone more evil than that? Maybe Zynga's coming… ■

Housemarque

With Resogun, the long-running studio has finally hit the big time



Founded 1995
Location Helsinki
Employees 55
Key staff Ilari Kuittinen (CEO, co-founder), Harri Tikkanen (creative director, co-founder), Mikael Haveri (head of self-publishing)
Selected softography *Super Stardust HD, Super Stardust Delta, Resogun*
URL www.housemarque.com
Current projects Unannounced PS4 game, unannounced iOS game



Housemarque moved into these new offices in October. Its headcount has grown by 12 since last year, but the studio is wary of over-expanding



STUDIO INSIGHT
Mikael Haveri
Head of self-publishing



Housemarque's founders have been making technically pioneering games for over 20 years, their debut release, *Stardust*, arriving in 1993 when the studio was known as Bloodhouse. It's a game that has since enjoyed new, high-definition life on both PS3 and PSP, and maintaining a good relationship with Sony platforms has reaped dividends for the studio following the arrival of PS4. *Resogun* was among the best received of the console's launch lineup, and the game's release for free through PlayStation Plus helped Housemarque to reach a hungry audience. At the company's plush new Helsinki offices, we ask **Mikael Haveri**, head of self-publishing, about where the studio goes from here.

You made the best PS4 launch game and then gave it away. How did that feel?
Absolutely perfect on both sides. The PS Plus thing is a blessing in disguise: you've got a game in a genre that's been popular back in the day but right now I don't think the masses are aware of it even existing. For us to reach that audience that otherwise wouldn't be interested in the game is just perfect.

***Resogun* was part of the PS Plus lineup for PS4's Japanese launch, too. What are your expectations for a foreign game in a very Japanese genre?**
Even in Japan, that genre is recognised as a niche thing. A lot of the greatest in the shmup genre do come from Japan so there's potential [to succeed in the region], but it remains to be seen. I've got my fingers crossed.

What are your plans for *Resogun* now it's no longer a PS Plus title?
We have a few options for where we can go with it. One's not continuing it and leaving it as a pure arcade experience. We could do traditional DLC, or the mobile kind of deal where you have more frequently added content and microtransactions. But as a company, since we have this very old-school standard for what we do, we want to take it easy. We're really trying to cater to our customers and, specifically, our core customers. We don't want to take too big a risk because finally, after almost 20 years, we think we've found something we can stand by. And I think we'd like to hold onto that for a while.

Does it feel like your loyalty to Sony has paid off?
You could say that, but we're very aware that this is an industry built on change. We're not buying Ferraris. Finland's not known for taking too many risks; we do take them, but we're usually well aware of the extent of them. We've been up and down – it's been a rollercoaster ride. If we were a two-, three-year-old company I think we'd all be thinking very differently. I'm a young guy within this organisation, but the company's legacy runs deep and it's clear to see.

What will you do next?
We have other projects – one mobile, one PS4. We're further exploring, playing around with *Resogun*, with the voxel stuff. Mobile, this whole free-to-play thing and everything around it, we're taking a relaxed gander in that direction. There's a lot of opportunities over there but we'd really like to emphasise our core values rather than try to create new ones. Since 1995 we've been creating our own technology, our own take on different genres and games, and I think taking that to the next level would be the next step. ■




HOUSEMARQUE



RedLynx

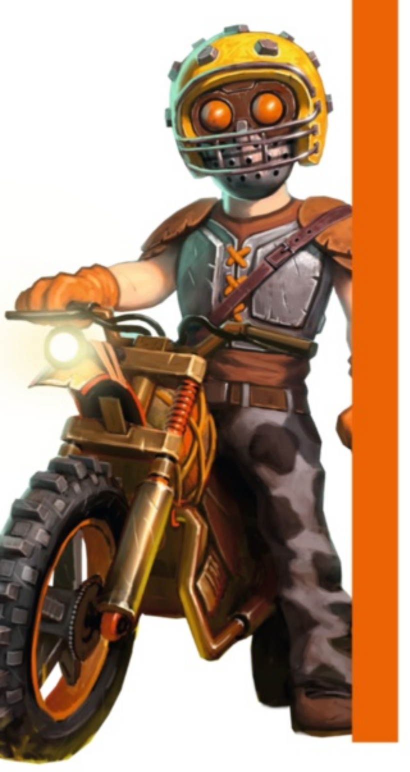
The Trials maker is going all in on its biggest success story

RedLynx

Founded 2000
Location Helsinki
Employees 110
Key staff Tero Virtala (managing director), Antti Ilvessuo (creative director)
URL www.redlynx.com
Selected softography *Trials HD, DrawRace, Trials Evolution*
Current projects *Trials Fusion* (360, PC, PS3, PS4, Xbox One), *Trials Frontier* (iOS, Android)



RedLynx's spacious offices feel a little more crowded these days – little wonder, given that it has taken on some 40 staff over the past 12 months





Rovio and Supercell may get the headlines, but RedLynx has grown at remarkable pace since its acquisition by Ubisoft in 2011. Then, the studio numbered 45 people. Last year that rose to 75, and today the studio's headcount stands at 110. It's been a necessary expansion as RedLynx takes on two big new challenges. *Trials Fusion* will be its first game to be multiplatform at launch. It's also taking its biggest success to mobile with the forthcoming *Trials Frontier*. Managing director **Tero Virtala** talks us through how those steep challenges are being approached.

Have player creations in *Trials Evolution*'s track editor surprised you?
Definitely. Some creators are just artistically amazing, [making] magnificent pieces of art. Some have a more engineering-based mindset and are thinking, OK, use these elements then change the camera angle and you're not controlling the motorcycle but something else entirely. People are creating entirely different types of minigames than we ever thought possible.

Has that aspect of the game helped in the studio's recruitment process at all?
We have about 15 level designers across both games. One fifth are the original guys. Forty per cent are from game education schools in Finland; we're cooperating with some of them, teaching their students level design with our tools. The rest are from the community. The most important thing is to serve our players in the best possible way, but as a side effect it's become a good recruitment source for us!

How has Ubisoft helped you to expand?
We have much more financial backing, and we don't only have RedLynx. Ubisoft has a lot of talented studios who specialise in specific areas. We're working very closely with Ubisoft Shanghai; one of their specialty areas is the online part. It allows us to focus even more on the creative side, the level design, the core elements. We're collaborating with Ubisoft Kiev, and have QC support from Ubisoft studios too. There are close to 200 people working on *Trials* at the moment. When *Fusion* and *Frontier* come out, people will see that.

How painful has it been to make the move to become a multiplatform studio?
Of course there are always challenges when you make this kind of jump. Architecturally the new consoles are very close to PC, which helps a lot, but what has been a big ambition for us is that the game has to be excellent on Xbox 360. That's where we come from, where *Trials* really comes from. We've paid extra attention, not just to have an absolutely fantastic next-gen game, but also to make sure the game is excellent on Xbox 360.

***Trials Frontier* will be free to play, which is a challenging fit for a series so famous for being difficult. How does it work?**
We've been very conscious of that from the start. A free game definitely has the opportunity of attracting the biggest userbase, but it was one of our biggest challenges. What is the approach that would attract the most users, which at first would most likely be very casual ones, but still offer endless playability for our core fans? That's the way we've tried to develop it. The game's live in Finland and Canada and so far it's really promising. It seems like we've created a model in which players are able to compete against each other, and if someone doesn't want to pay they're not forced to. And still people are playing it. ■



Rovio

Its focus may have widened, but games still lie at the heart of the Angry Birds maker



Founded 2003
Location Espoo
Employees 800
Key staff Mikael Hed (CEO, co-founder), Niklas Hed (co-founder), Peter Vesterbacka (CMO)
Selected softography *Angry Birds, Angry Birds Space, Angry Birds Star Wars, Angry Birds Go, Bad Piggies*
URL www.rovio.com
Current projects Multiple unannounced games



Rovio's Tampere studio, opened in 2012, has reduced its reliance on the Helsinki area for talent; now it's increasingly hiring from overseas, too





STUDIO INSIGHT
Sami Lahtinen
SVP of game development



Finland's biggest videogame company spent much of 2013 broadening its reach. Its Angry Birds Toons animated series, launched in March 2013, has already garnered over a billion views. A range of Telepods based on the company's games furthered its move into licensing, as did the announcement of an Angry Birds film. The studio kept its feet wet, however, with downhill racer *Angry Birds Go*. Here, SVP of game development **Sami Lahtinen** explains how Rovio is managing its transformation while remaining true to its roots.

***Angry Birds Go* was your first free-to-play release – what did you learn from that process?**
It affects how we organise teams. The amount of complexity in building those games is just massive, and the only way you can tackle that complexity is to build something, test it, learn and repeat. We realised that maybe our learning pace hasn't been fast enough – that's something we've also fixed during the year, and I think we're in a good position. But it is a difficult business. To predict where the market goes, and what's in the player's brain – it's a complex animal.

What else have you had to do in this transition from premium games to free-to-play, from game developer to entertainment company?
We've had massive growth and we're still growing, mainly through new business areas – be it animated content, books, comics or other licensed products, you've seen a lot of that – but also ramping up our game development. We now have studios in Espoo, Tampere and Stockholm. Games represent less than half of our headcount today, but it is of course important for the whole company. It's where it all originated. But we're not a games company; we're an entertainment powerhouse-to-be.

How does your game development arm function these days?
There's lots of freedom. We believe success is pretty much a function of a team and an environment. What we want to do is get the best talent, formulate teams which work together very well, and offer them an environment where they can give it their best shot. It's like a startup inside the company, the ideology we have.

You're a big company in a small country. Where are you finding new talent nowadays?
It's been a challenge, and it's becoming even more challenging. The Finnish education system is ramping up, but it can't feed the amount of talent that our industry needs. There's been lots of international talent coming to Finland also, and that's something I see happening more and more. We can't change the weather and we can't change the location, but at the moment the Helsinki area seems to be a very attractive place.

What does the future hold? You've compared the company to Disney, but Disney's interests are obviously wider than Rovio's at the moment. You need something else, right?
I think the comparison is that we are building what Disney built in decades in a much shorter time. What's our target? Entertaining and delighting our fans by diversifying new businesses and new areas. Angry Birds and Bad Piggies are important for us, but there is something more coming from us for sure. We're not going to be a single-brand company. ■

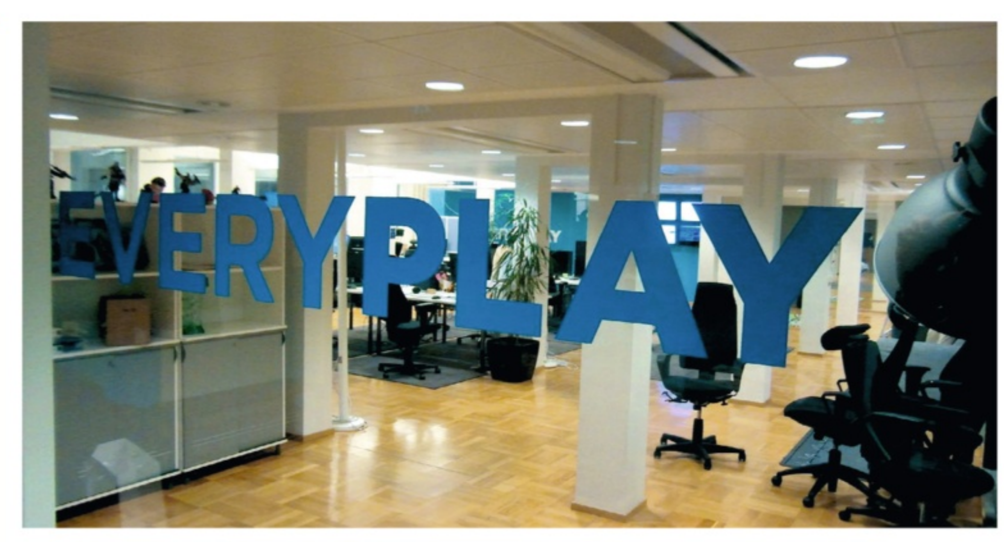

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Everyplay

The video sharing service with eyes on being mobile gaming's YouTube



Founded 2008
Location Helsinki
Employees 40
Key staff Jussi Laakkonen (CEO, founder)
URL everyplay.com



Everyplay's offices are a short hop from Helsinki's central railway station. The company also has a presence in the US, South Korea and Japan



STUDIO INSIGHT
Jussi Laakkonen
CEO, founder



The evolution of Helsinki company Applifier says much about how mobile and social gaming has changed. What started out as a game developer turned into a cross-promotional ad network for social games, then into a video advertising business, and finally into Everyplay, an ambitious video capture and sharing service and social network. All are united by their simplicity: those early banner ads required just five lines of HTML to implement, and while Everyplay's blend of gameplay recording, facial capture, audio commentary and, soon, live streaming makes it a much more complex offering, developers can get it up and running in Unity in a couple of minutes. We speak to CEO **Jussi Laakkonen** about his plans to make Everyplay the YouTube of mobile games.

What's the extent of what you're trying to achieve with Everyplay?

The big question for mobile is: what's the best way to find a game? The answer is: by asking a friend. Word of mouth is more important than 'Featured' slots. Four years ago I was having dinner with someone who was talking about this game about airplane traffic. I thought that sounded about as exciting as watching ice melt. Then he showed me *Flight Control* and I was like, "Holy crap". And four years later, I'm still playing it. Imagine an ad having that much impact. At Everyplay our goal is to take the power of word of mouth and move it online, to make video sharing seamless and easy.

How many games use Everyplay?

It's in 280 games on iOS; some really interesting developers are starting to use it. It's in *Bad Piggies*, where the recording is on demand, but in most games it's automatic. Rovio wanted to support 3GS, which is very low-end; it runs so fast that the game is not impacted, but if you make it automatic on 3GS it slows down too much. Another tap replays your video; you can trim it if you like and then share it to Facebook, Twitter, YouTube, email or our own social network. Everyplay has six million registered users, and registration is voluntary. And it's fully crossplatform – if the game has iOS and Android versions, videos will be in the same place.

Can you explain how developers are using the technology in different ways?

While we provide a social interface to Everyplay, any developer can extend that to build whatever they want using the same API. A Finnish company called Grand Cru is making a game called *Supernauts*, and in it you have to level up to get the camera which opens up the ability to record, visit Everyplay and see your videos. When you view a player's profile it uses our search API to pull replays from that player. You can embed Everyplay into your game, integrating leaderboards with high-score replays. We think people will come up with ideas for this that we haven't thought of yet. We think of this as a service, or platform, that other people can extend.

Everyplay helps games to reach wider audiences; what does it do for players?

It's about enabling players' self-expression and giving them a medium to connect with other players. Feedback from other players and the ability to share your biggest wins and achievements is super-important to the most engaged players. Down the road, we hope we can also work with professional content creators, as you see with Twitch and YouTube, to allow them to reach more viewers and even help them earn revenues while doing that. ■



***Dead Trigger 2*, from Madfinger Games, is one of many titles that incorporate Everyplay**

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developers.everyplay.com

EVERYPLAY

Next Games

A small team with big plans for the next generation of mobile games



Founded 2013
Location Helsinki
Employees 15
Key staff Teemu Huuhtanen (co-founder), Joakim Achren (co-founder and CPO), Jay Ranki (head of studio)
URL www.nextgames.com
Current projects Two unannounced F2P iOS games





From left: CPO Joakim Achren; creative director Mikael Achren; lead programmer Jaakko Jumisko; CTO Kalle Hiitola; CEO Teemu Huuhtanen



STUDIO INSIGHT
Joakim Achren
Co-founder and CPO
Jay Ranki
Head of studio





Finland is fertile ground for startups, thanks not only to the government's Tekes technology funding scheme but also the sudden rush of VCs looking for the next Rovio or Supercell. Next Games' founding group includes former Rovio exec Teemu Huuhtanen and **Joakim Achren**, ex-director of analytics at *Clash Of Clans* developer Supercell. Here, Achren and head of studio **Jay Ranki** explain how this young company plans to take on the Goliaths of the App Store.

What did you learn about metrics during your time at Supercell?
Joakim Achren I'm a game designer, but I wanted to do analytics to learn how free-to-play is done properly. Everything is connected – the game design, how updates are planned for, marketing, player support and community. Looking at it through analytics, you know what is working and what isn't working. But still, at Supercell I learned that it's all about the game, really. You can't make a bad game into a good game with metrics.

People are still suspicious of free-to-play monetisation interfering with game design. How do you ensure that it doesn't happen?
JA My focus is getting people back to the game once they've tried it, then getting them to come back for days, weeks, months. You don't need to get them to pay really early on – you need to get them to engage. When that happens, if you have an engaged audience, you know that they will pay at some point. Once a player starts paying, their friends, who are also playing the game, will more likely pay. Getting that functionality into the game is tricky, but high engagement is the best way of doing it.
Jay Ranki Business models have always affected game design. We used to have shareware games where you gave the beginning away for free. In the arcades, everything was designed around getting people to put in more coins. This is not a new phenomenon: game design needs to live and evolve with business models.

What's the work environment like here?
JR We have one room. It's a startup kind of mentality. I started my career with [Supercell CEO] Ilkka Paananen at his first company, Sumea, and we were 20 then. It's nice going back to your roots, working in a small, efficient team. With big teams, there's so much overhead just in communication and organising everything.

How do you see the studio evolving over the next few years?
JA I want to create something that lasts. These games are meant to be services for players – they play them for months. What we're making are the next generation of mobile games – they'll feel even more gamey than they are at the moment.
JR We want to build the best place for people to work – a place where they can be effective, efficient, have creative input on things. I've seen so many places where the success of the company is ripped from the back of the employees in one way or another. I want to retire from the game industry; I don't want to work in the game industry when I'm young and then move on to something easier. We want to create a game industry where people can work their whole careers and enjoy their lives outside of work, and spend time with their families. To me, that's the biggest mission we can have. ■


NEXT GAMES

PlayRaven

The small startup with big plans for iPad strategy games



Founded 2013
Location Helsinki
Employees 10
Key staff Lasse Seppänen (co-founder, CEO), Teemu Haila (co-founder, product manager)
URL www.playraven.com
Current projects
Spymaster (iPad)



Lasse Seppänen (left) is clearly relishing his return to the creative process after his time at Remedy, where he served as chief operating officer





Looking at the CVs of its founder group, it's easy to see why PlayRaven recently raised €1.7m in venture funding. Co-founder and CEO **Lasse Seppänen** was executive producer on *Alan Wake*; prior to that he worked for Supercell CEO Ilkka Paananen at Digital Chocolate. PlayRaven's other founders have a similar mix of mobile, triple-A and social-game skills, and between them they have 50 years of industry experience. Their first game, *Spymaster*, is a spy management game for iPad set in WWII. It's intriguingly pitched as "football manager with spies", with randomly generated missions and storylines to provide the replayability that's so essential in free-to-play. Here, Seppänen explains how PlayRaven plans to take strategy on iPad to the next level.

Was it your mission to build a team with experience in multiple fields?
I have both mobile and triple-A experience and I thought I would gather a founder group based on that principle: a good mixture so that the team understands the mobile use case, the limitations of the platform, but also can produce really high quality production values. And also outsourcing – it's very important for us to outsource as much as possible and keep a very tight senior team at the core. Outsourcing's an interesting choice, especially as you're working in Unity.

Why not do things in-house?
We like to use experts. Illustrations are a big deal for our game, so we want the best, but we don't want to hire an illustrator because we don't have a full-time role. And creatively it's very important that you don't have a large head count. The smaller the team, the more creative you can be; you can prototype things and make quick changes. The more people we have, the slower it is to backtrack.

Why choose the strategy genre?
For the past 20 years, I've wanted to make them. My first game was a tactical mobile game where you had two submarines fighting destroyer ships. It was asymmetric – a new game mechanic when most other studios at that time were making Battleships. Ever since then, my career has been mostly focused on making games with new mechanics, new ideas, in whatever way possible. I've always been a big proponent of being different. We think it's time to renew the strategy genre, provide a little bit more depth, a bit more realism. This is something I exercised at Remedy for six years: how do you make a game that is anchored in reality, inspired by reality, but not a copy of reality?

You have strong investment – how will you be spending those resources?
The investment allows us much more creative freedom. We picked investors who believe in our strategy – they understand that reaching new gamers requires taking creative risks. So while we of course seek feedback from everyone including the boardroom, the final greenlight decision has to be CEO's. This kind of groundbreaking game couldn't be made any other way, in my opinion. The investors asked about our second game; we said we'd design the concepts with the new team we're currently recruiting, so we can't give a direct answer. It's going to fit under our umbrella: it's going to be innovative, with a new theme, distinctive art style and new gameplay mechanics because we don't copy, or clone, or incrementally improve other games. I think life's too short for that. ■





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